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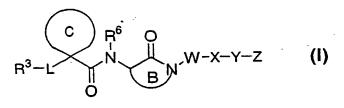
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(54) Title: CYCLIC LACTAMS AS INHIBITORS OF Aβ PROTEIN PRODUCTION



(57) Abstract: This invention relates to novel cyclic malonamides having the formula (I): to their pharmaceutical compositions and to their methods of use. These novel compounds inhibit the processing of amyloid precursor protein and, more specifically, inhibit the production of  $A\beta$ -peptide, thereby acting to prevent the formation of neurological deposits of amyloid protein. More particularly, the present in-

vention relates to the treatment of neurological disorders related to β-amyloid production such as Alzheimer's disease and Down's Syndrome.

#### TITLE

### CYCLIC LACTAMS AS INHIBITORS OF A-BETA-PROTEIN PRODUCTION

## FIELD OF THE INVENTION

This invention relates to novel cyclic malonamides having drug and bio-affecting properties, their pharmaceutical compositions and methods of use. These novel compounds inhibit the processing of amyloid precursor protein and, more specifically, inhibit the production of  $A\beta$ -peptide, thereby acting to prevent the formation of neurological deposits of amyloid protein. More particularly, the present invention relates to the treatment of neurological disorders related to  $\beta$ -amyloid production such as Alzheimer's disease and Down's Syndrome.

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## BACKGROUND OF THE INVENTION

Alzheimer's disease (AD) is a degenerative brain disorder characterized clinically by progressive loss of memory, temporal and local orientation, cognition, reasoning, judgment and emotionally stability. AD is a common cause of progressive dementia in humans and is one of the major causes of death in the United States. AD has been observed in all races and ethnic groups worldwide, and is a major present and future health problem. No treatment that effectively prevents AD or reverses the clinical symptoms and underlying pathophysiology is currently available (for review, Dennis J. Selkoe; Cell Biology of the amyloid (beta)-protein precursor and the mechanism of Alzheimer's disease, Annu Rev Cell Biol, 1994, 10: 373-403).

Histopathological examination of brain tissue derived upon autopsy or from neurosurgical specimens in effected individuals revealed the occurrence of amyloid plaques and neurofibrillar tangles in the cerebral cortex of such patients. Similar alterations were observed in patients with Trisomy 21 (Down's syndrome), and hereditary cerebral hemorrhage with amyloidosis of the Dutch-type.

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Neurofibrillar tangles are nonmembrane-bound bundles of abnormal proteinaceous filaments and biochemical and immunochemical studies led to the conclusion that their principle protein subunit is an altered phosphorylated form of the tau protein (reviewed in Selkoe, 1994).

Biochemical and immunological studies revealed that the dominant proteinaceous component of the amyloid plaque is an approximately 4.2 kilodalton (kD) protein of about 39 to 43 amino acids. This protein was designated A $\beta$ ,  $\beta$ -amyloid peptide, and sometimes  $\beta/A4$ ; referred to herein as A $\beta$ . In addition to its deposition in amyloid plaques, A $\beta$  is also found in the walls of meningeal and parenchymal arterioles, small arteries, capillaries, and sometimes, venules. A $\beta$  was first purified and a partial amino acid reported in 1984 (Glenner and Wong, Biochem, Biophys, Res. Commun. 120: 885-890). The isolation and sequence data for the first 28 amino acids are described in U.S. Pat. No 4,666,829.

Compelling evidence accumulated during the last decade revealed that  $A\beta$  is an internal polypeptide derived from a type 1 integral membrane protein, termed  $\beta$  amyloid precursor protein (APP).  $\beta$  APP is normally produced by many cells both in vivo and in cultured cells, derived from various animals and humans.  $A\beta$  is derived from cleavage of  $\beta$  APP by as yet unknown enzyme (protease) system(s), collectively termed secretases.

The existence of at least four proteolytic activities has been postulated. They include  $\beta$  secretase(s), generating the N-terminus of  $A\beta$ ,  $\alpha$  secretase(s) cleaving around the 16/17 peptide bond in  $A\beta$ , and  $\gamma$  secretases, generating C-terminal  $A\beta$  fragments ending at position 38, 39, 40, 42, and 43 or generating C-terminal extended precursors which are subsequently truncated to the above polypeptides.

Several lines of evidence suggest that abnormal accumulation of  $A\beta$  plays a key role in the pathogenesis of AD. Firstly,  $A\beta$  is the major protein found in amyloid

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PCT/US01/10667 Aly, A $\beta$  is neurotoxic and be causally plaques. related to neuronal death observed in AD patients. Thirdly, missense DNA mutations at position 717 in the 770 isoform of  $\beta$  APP can be found in effected members but not unaffected members of several families with a genetically determined (familiar) form of AD. In addition, several other  $\beta$  APP mutations have been described in familiar forms of AD. Fourthly, similar neuropathological changes have been observed in transgenic animals overexpressing mutant forms of human  $\beta$  APP. Fifthly, individuals with Down's syndrome have an increased gene dosage of  $\beta$  APP and develop early-onset AD. Taken together, these observations strongly suggest that  ${\tt A}{\beta}$  depositions may be causally related to the AD.

It is hypothesized that inhibiting the production of  ${\tt A}{\beta}$  will prevent and reduce neurological degeneration, by controlling the formation of amyloid plaques, reducing neurotoxicity and, generally, mediating the pathology associated with  ${\ensuremath{\mathsf{A}\beta}}$  production. One method of treatment methods would therefore be based on drugs that inhibit the formation of  $A\beta$  in vivo.

Methods of treatment could target the formation of  ${\tt A}{\beta}$ through the enzymes involved in the proteolytic processing of  $\beta$  amyloid precursor protein. Compounds that inhibit  $\beta$ or  $\gamma$  secretase activity, either directly or indirectly, could control the production of  $A\beta$ . Advantageously, compounds that specifically target  $\gamma$  secretases, could control the production of  $A\beta$ . Such inhibition of  $\beta$  or  $\gamma$ secretases could thereby reduce production of  $A\beta$ , which, thereby, could reduce or prevent the neurological disorders associated with AB protein.

PCT publication number WO 96/29313 discloses the general formula:

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covering metalloprotease inhibiting compounds useful for the treatment of diseases associated with excess and/or unwanted matrix metalloprotease activity, particularly collagenase and or stromelysin activity.

Compounds of general formula:

are disclosed in PCT publication number WO 95/22966

relating to matrix metalloprotease inhibitors. The compounds of the invention are useful for the treatment of conditions associated with the destruction of cartilage, including corneal ulceration, osteoporosis, periodontitis and cancer.

European Patent Application number EP 0652009A1 relates to the general formula:

$$W = N$$

20 and discloses compounds that are protease inhibitors that inhibit  $\ensuremath{\mathtt{A}\beta}$  production.

US Patent Number 5703129 discloses the general formula:

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which covers 5-amino-6-cyclohexyl-4-hydroxy-hexanamide derivatives that inhibit  $A\beta$  production and are useful in the treatment of Alzheimer's disease.

Copending, commonly assigned U.S. patent application Serial Number 09/370089 filed August 7, 1999 (equivalent to international application PCT US99/17717) discloses lactams of general formula:

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wherein the lactam ring B is substituted by succinamide and a carbocyclic, aryl, or heteroaryl group. These compounds inhibit the processing of amyloid precursor protein and, more specifically, inhibit the production of A $\beta$ -peptide, thereby acting to prevent the formation of neurological deposits of amyloid protein.

None of the above references teaches or suggests the 15 compounds of the present invention which are described in detail below.

## SUMMARY OF THE INVENTION

One object of the present invention is to provide novel compounds which are useful as inhibitors of the production of  $A\beta$  protein or pharmaceutically acceptable salts or prodrugs thereof.

It is another object of the present invention to provide pharmaceutical compositions comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of at least one of the compounds of the present invention or a pharmaceutically acceptable salt or prodrug form thereof.

It is another object of the present invention to provide a method for treating degenerative neurological disorders comprising administering to a host in need of such treatment a therapeutically effective amount of at least one of the compounds of the present invention or a pharmaceutically acceptable salt or prodrug form thereof.

These and other objects, which will become apparent during the following detailed description, have been achieved by the inventors' discovery that compounds of Formula (I):

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or a stereoisomer, pharmaceutically acceptable salt or prodrug forms thereof, wherein  $R^3$ ,  $R^6$ , B, C, W, X, Y, and Z are defined below, are effective inhibitors of the production of  $A\beta$ .

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Thus, in a first embodiment, the present invention

provides a novel compound of Formula (I):

or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

L is  $-NR^{26}C(=0)-$ ,  $-C(=0)NR^{26}-$ ,  $-NR^{26}C(=0)O-$ ,  $-OC(=0)NR^{26}$ , or  $-NR^{26}C(=0)NR^{26}-$ ;

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-(CR^7R^{7a})_1-C(=0)-(CR^7R^{7a})_m-R^4
            -(CR^{7}R^{7a})_{1}-N(R^{7b})C(=0)-(CR^{7}R^{7a})_{m}-R^{4}
            -(CR^7R^{7a})_1-C(=0)N(R^{7b})-(CR^7R^{7a})_m-R^4
            -(CR^7R^{7a})_{1}-N(R^{7b})_{S}(=0)_{2}-(CR^7R^{7a})_{m}-R^4, or
            -(CR^7R^{7a})_1-S(=0)_2N(R^{7b})-(CR^7R^{7a})_m-R^4;
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     n is 0, 1, 2, or 3;
     m is 0, 1, 2, or 3;
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     l is 1, 2, or 3;
     Ring C is a 3 to 8 membered carbocycle,
           wherein the carbocycle is saturated or partially
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                  saturated;
           optionally, the carbocycle contains a heteroatom
                  selected from -0-, -S-, -S(=0)-, -S(=0)_2-, and
                  -N(R^{20}) -; and
           wherein the carbocycle is substituted with 0-4 R<sup>21</sup>;
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     R^4 is H, OH, OR^{14a},
           C_1-C_8 alkyl substituted with 0-3 R^{4a},
           C_2-C_8 alkenyl substituted with 0-3 R^{4a},
           C2-C8 alkynyl substituted with 0-3 R4a,
           C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,
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           C_6-C_{10} aryl substituted with 0-3 R^{4b}, or
           5 to 10 membered heterocycle containing 1 to 4
              heteroatoms selected from nitrogen, oxygen, and
              sulphur, wherein said 5 to 10 membered heterocycle
               is substituted with 0-3 R4b;
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     R4a, at each occurrence, is independently selected from H,
           OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,
           C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,
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           C_6-C_{10} aryl substituted with 0-3 R^{4b}, and
           5 to 10 membered heterocycle containing 1 to 4
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heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;

R<sup>4b</sup>, at each occurrence, is independently selected from H,
OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,
S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub>
haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

#### R<sup>6</sup> is H;

- 10  $C_{1}$ - $C_{6}$  alkyl substituted with 0-3  $R^{6a}$ ;  $C_{3}$ - $C_{10}$  carbocycle substituted with 0-3  $R^{6b}$ ; or  $C_{6}$ - $C_{10}$  aryl substituted with 0-3  $R^{6b}$ ;
- $R^{6a}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , aryl and  $CF_3$ ;
- $R^{6b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, and  $C_1-C_4$  haloalkoxy;
  - $R^7$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $CF_3$ ,  $C_1$ - $C_4$  alkyl, phenyl substituted with 0-5  $R^{7c}$ ;
  - $R^{7a}$ , at each occurrence, is independently selected from H, Cl, F, Br, I, CN, CF<sub>3</sub>, and C<sub>1</sub>-C<sub>4</sub> alkyl;
    - $R^{7b}$  is independently selected from H and  $C_1-C_4$  alkyl;
  - 30  $R^{7c}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, CF<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkoxy, and C<sub>1</sub>-C<sub>4</sub> alkyl;
  - 35 B is a 5 to 10 membered lactam,

    wherein the lactam is saturated, partially saturated

    or unsaturated;

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wherein each additional lactam carbon is substituted with 0-2 R<sup>11</sup>; and,

optionally, the lactam contains an additional heteroatom selected from -O-, -S-, -S(=O)-,  $-S(=O)_2-$ , -N=, -NH-, and  $-N(R^{10})-$ ;

R<sup>10</sup> is H, C(=0)R<sup>17</sup>, C(=0)OR<sup>17</sup>, C(=0)NR<sup>18</sup>R<sup>19</sup>,
 S(=0)<sub>2</sub>NR<sup>18</sup>R<sup>19</sup>, S(=0)<sub>2</sub>R<sup>17</sup>;
 C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 0-3 R<sup>10a</sup>;

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>10b</sup>;
 C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>10b</sup>; or

5 to 10 membered heterocycle containing 1 to 4
 heteroatoms selected from nitrogen, oxygen, and
 sulphur, wherein said 5 to 10 membered heterocycle
 is substituted with 0-3 R<sup>10b</sup>;

- $R^{10a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , aryl substituted with 0-4  $R^{10b}$ ;  $C_3$ - $C_{10}$  carbocycle substituted with 0-3  $R^{10b}$ , and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{10b}$ ;
- 25 R<sup>10b</sup>, at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkyl-S-;
- R<sup>11</sup>, at each occurrence, is independently selected from H,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, =0, CN, NO<sub>2</sub>, NR<sup>18</sup>R<sup>19</sup>,  $C(=0)R^{17}$ ,  $C(=0)OR^{17}$ ,  $C(=0)NR^{18}R^{19}$ ,  $S(=0)_2NR^{18}R^{19}$ ,  $CF_3$ ;  $C_1$ - $C_6$  alkyl optionally substituted with 0-3  $R^{11a}$ ;  $C_6$ - $C_{10}$  aryl substituted with 0-3  $R^{11b}$ ;  $C_3$ - $C_{10}$  carbocycle substituted with 0-3  $R^{11b}$ ; and



5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>11b</sup>;

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 $\rm R^{11a},$  at each occurrence, is independently selected from H,  $\rm C_1-C_6$  alkyl,  $\rm OR^{14},$  Cl, F, Br, I, =0, CN, NO\_2, NR^{15}R^{16}, CF\_3;

phenyl substituted with 0-3 R11b;

 $C_3$ - $C_6$  cycloalkyl substituted with 0-3 R<sup>11b</sup>; and

5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R<sup>11b</sup>;

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R<sup>11b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,

 $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

additionally, two R<sup>11</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heteroaryl fused radical, wherein said 5 to 6 membered heteroaryl fused radical comprises 1 or 2 heteroatoms selected from N,

0, and S; wherein said 5 to 6 membered heteroaryl fused radical is substituted with 0-3 R<sup>13</sup>;

additionally, two  $R^{11}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{13}$ ;

additionally, two R<sup>11</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-4 R<sup>13</sup>;

W is -(CR8R8a)p-;

p is 0, 1, 2, 3, or 4;

R8 and R8a, at each occurrence, are independently selected from H, F, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>4</sub> alkenyl, C<sub>2</sub>-C<sub>4</sub> alkynyl and C<sub>3</sub>-C<sub>8</sub> cycloalkyl;

X is a bond;

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>Xb</sup>;

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>Xb</sup>; or

5 to 10 membered heterocycle substituted with 0-2 R<sup>Xb</sup>;

RXb, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> halothioalkoxy;

Y is a bond or  $-(CR^9R^{9a})_t-V-(CR^9R^{9a})_u-;$ 

20 t is 0, 1, 2, or 3;

u is 0, 1, 2, or 3;

 $R^9$  and  $R^{9a}$ , at each occurrence, are independently selected from H, F,  $C_1$ - $C_6$  alkyl and  $C_3$ - $C_8$  cycloalkyl;

V is a bond, -C(=0)-, -0-, -S-, -S(=0)-,  $-S(=0)_2$ -,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)_2$ -,  $-S(=0)NR^{19b}$ -, -C(=0)0-, or -OC(=0)-;

Z is H;

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 $C_1$ - $C_8$  alkyl substituted with 1-3  $R^{12}$ ;  $C_2$ - $C_4$  alkenyl substituted with 1-3  $R^{12}$ ;  $C_2$ - $C_4$  alkynyl substituted with 1-3  $R^{12}$ ;  $C_1$ - $C_8$  alkyl substituted with 0-3  $R^{12a}$ ;

 $C_2-C_4$  alkenyl substituted with 0-3  $R^{12a}$ ;

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C2-C4 alkynyl substituted with 0-3 R<sup>12a</sup>;
C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;
C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

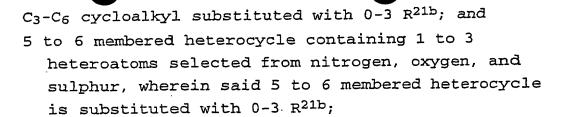
- R12, at each occurrence, is independently selected from C6-C10 aryl substituted with 0-4 R12b;
  C3-C10 carbocycle substituted with 0-4 R12b; and
   5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R12b;
  - $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $-C(=0)NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- R12b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- $R^{14}$  is H, phenyl substituted with 0-4  $R^{14b}$ , benzyl substituted with 0-4  $R^{14b}$ ,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, or  $C_3$ - $C_6$  cycloalkyl;
  - $\mathbb{R}^{14a}$  is H,  $\mathbb{C}_6$ - $\mathbb{C}_{10}$  aryl, benzyl, heterocycle, or  $\mathbb{C}_1$ - $\mathbb{C}_4$  alkyl;

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- R14b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,
- 5  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- $R^{15}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, aryl- $(C_1$ - $C_6$  alkyl)- wherein the aryl is substituted with 0-4  $R^{15b}$ ,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- R15b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- $R^{16}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- $R^{17}$  is H,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, aryl substituted by 0-4  $R^{17a}$ , or  $-CH_2$ -aryl substituted by 0-4  $R^{17a}$ ;
  - R<sup>17a</sup> is H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, butoxy, -OH, F, Cl, Br, I, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, S(O)CH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, or C<sub>1</sub>-C<sub>4</sub> haloalkyl;
- R18, at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)2-;
- 35 R<sup>19</sup>, at each occurrence, is independently selected from H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, phenyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=0)<sub>2</sub>-;

R<sup>20</sup> is H, C(=O)R<sup>17</sup>, C(=O)OR<sup>17</sup>, C(=O)NR<sup>18</sup>R<sup>19</sup>,
 S(=O)<sub>2</sub>NR<sup>18</sup>R<sup>19</sup>, S(=O)<sub>2</sub>R<sup>17</sup>;
 C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 0-2 R<sup>20a</sup>;
 C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>20b</sup>;
 C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>20b</sup>; or
 5 to 10 membered heterocycle containing 1 to 4
 heteroatoms selected from nitrogen, oxygen, and
 sulphur, wherein said 5 to 10 membered heterocycle
 is substituted with 0-3 R<sup>20b</sup>;

- $R^{20a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , F, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , aryl substituted with 0-4  $R^{20b}$ , and heterocycle substituted with 0-4  $R^{20b}$ ;
- $R^{20b}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkyl-S-;
- R<sup>21</sup>, at each occurrence, is independently selected from H, C<sub>1</sub>-C<sub>4</sub> alkoxy, Cl, F, Br, I, =0, CN, NO<sub>2</sub>, NR<sup>18</sup>R<sup>19</sup>, C(=0)R<sup>17</sup>, C(=0)OR<sup>17</sup>, C(=0)NR<sup>18</sup>R<sup>19</sup>, S(=0)<sub>2</sub>NR<sup>18</sup>R<sup>19</sup>, CF<sub>3</sub>; C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 0-3 R<sup>21a</sup>; C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>21b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>21b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>21b</sup>;
- $R^{21a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ ; phenyl substituted with 0-3  $R^{21b}$ ;



- $R^{21b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,
- 10  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heteroaryl fused radical, wherein said 5 to 6 membered heteroaryl fused radical comprises 1 or 2 heteroatoms selected from N, O, and S; wherein said 5 to 6 membered heteroaryl fused radical is substituted with 0-3 R<sup>23</sup>;
- 20 additionally, two  $R^{21}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{23}$ ;
- additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-4 R<sup>23</sup>;
- $R^{23}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, and CF<sub>3</sub>;
- $R^{26}$  is H;  $C_1$ - $C_6$  alkyl substituted with 0-3  $R^{26a}$ ;  $C_3$ - $C_{10}$  carbocycle substituted with 0-3  $R^{26b}$ ; or  $C_6$ - $C_{10}$  aryl substituted with 0-3  $R^{26b}$ ;

- $R^{26a}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , aryl and  $CF_3$ ; and
- 5  $R^{26b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, and C<sub>1</sub>-C<sub>4</sub> haloalkoxy.
- [2] In a preferred embodiment the present invention provides a compound of Formula (I), wherein:

L is  $-NR^{26}C(=0)$ -,  $-C(=0)NR^{26}$ -, or  $-OC(=0)NR^{26}$ -;

R<sup>3</sup> is  $-(CHR^7)_{n}-R^4$ , 15  $-(CHR^7)_{1}-N-(CR^7R^{7a})_{m}-R^4$ , or  $-(CHR^7)_{1}-O-(CR^7R^{7a})_{m}-R^4$ ;

n is 0, 1 or 2;

20 m is 0, 1 or 2;

l is 1;

- Ring C is a 3 to 8 membered carbocycle substituted with 0-4  $R^{21}$ ; optionally, the carbocycle contains a heteroatom selected from -O- and -N( $R^{20}$ )-;
  - $R^4$  is H, OH,  $OR^{14a}$ ,

 $C_1-C_6$  alkyl substituted with 0-3  $R^{4a}$ ,

30  $C_2-C_6$  alkenyl substituted with 0-2  $R^{4a}$ ,

C2-C6 alkynyl substituted with 0-1 R4a,

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

 $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or

5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R4b;

R <sup>4a</sup> .	at each occurrence, is independently selected from H
. ,	OH, F, Cl, Br, I, NR <sup>15</sup> R <sup>16</sup> , CF <sub>3</sub> ,
	$C_3-C_6$ carbocycle substituted with 0-3 $R^{4b}$ ,
	phenyl substituted with $0-3$ $R^{4b}$ , and
	5 to 6 membered heterocycle containing 1 to 4
	heteroatoms selected from nitrogen, oxygen, and
	sulphur, wherein said 5 to 6 membered heterocycle
	is substituted with 0-3 R4b;

5

 $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

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R6 is H;

 $\mathbb{R}^7$ , at each occurrence, is independently selected from H, OH, F, CF<sub>3</sub>, methyl, and ethyl;

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Ring B is a 7 membered lactam,
wherein the lactam is saturated, partially saturated
or unsaturated;

wherein each additional lactam carbon is substituted with 0-2  $R^{11}$ ; and,

optionally, the lactam contains a heteroatom selected from -O-, -S-, -S(=O)-, -S(=O)<sub>2</sub>-, -N=, -NH-, and -N( $\mathbb{R}^{10}$ )-;

30  $R^{10}$  is H,  $C(=0)R^{17}$ ,  $C(=0)OR^{17}$ ,  $C(=0)NR^{18}R^{19}$ ,  $S(=0)_2NR^{18}R^{19}$ ,  $S(=0)_2R^{17}$ ;  $C_1-C_6 \text{ alkyl optionally substituted with } 0-2 R^{10a};$   $C_6-C_{10} \text{ aryl substituted with } 0-4 R^{10b};$   $C_3-C_{10} \text{ carbocycle substituted with } 0-3 R^{10b}; \text{ or }$ 

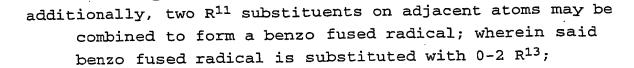
5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and



sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>10b</sup>;

- R10a, at each occurrence, is independently selected from H, C1-C6 alkyl, OR<sup>14</sup>, Cl, F, Br, I, =0, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, phenyl substituted with 0-4 R<sup>10b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>10b</sup>;
  - $R^{10b}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- R11, at each occurrence, is independently selected from H, C1-C4 alkoxy, Cl, F, Br, I, =0, CN, NO2, NR18R19, C(=0)R17, C(=0)OR17, C(=0)NR18R19, S(=0)2NR18R19, CF3; C1-C6 alkyl optionally substituted with 0-3 R11a; C6-C10 aryl substituted with 0-3 R11b; C3-C10 carbocycle substituted with 0-3 R11b; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R11b;
  - $R^{11a}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;
- R11b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, and C<sub>1</sub>-C<sub>4</sub> haloalkoxy;

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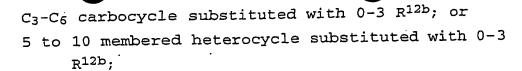
- 5 additionally, two R<sup>11</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heteroaryl fused radical, wherein said 5 to 6 membered heteroaryl fused radical comprises 1 or 2 heteroatoms selected from N, 0, and S; wherein said 5 to 6 membered heteroaryl fused radical is substituted with 0-2 R<sup>13</sup>;
  - additionally, two  $R^{11}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-2  $R^{13}$ ;

15 W is a bond,  $-CH_2-$ ,  $-CH(CH_3)-$ ,  $-CH_2CH_2-$  or  $-CH(CH_3)CH_2-$ ;

- X is a bond; phenyl substituted with 0-2  $R^{Xb}$ ; 20  $C_3$ - $C_6$  cycloalkyl substituted with 0-2  $R^{Xb}$ ; or 5 to 6 membered heterocycle substituted with 0-2  $R^{Xb}$ ;
- $R^{\mathrm{Xb}}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

Y is a bond,  $-CH_2-V-$ , -V-, or  $-V-CH_2-$ ;

- 30 V is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -,
- Z is H;  $C_1$ - $C_6$  alkyl;  $C_2$ - $C_4$  alkenyl;  $C_2$ - $C_4$  alkynyl;  $C_1$ - $C_3$  alkyl substituted with 1-2  $R^{12}$ ;  $C_2$ - $C_3$  alkenyl substituted with 1-2  $R^{12}$ ;  $C_2$ - $C_3$  alkynyl substituted with 1-2  $R^{12}$ ;  $C_6$ - $C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;



- 5 R<sup>12</sup>, at each occurrence, is independently selected from C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;
  C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;
- R12b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
  - $R^{14}$  is H, phenyl, benzyl,  $C_1-C_4$  alkyl, or  $C_2-C_4$  alkoxyalkyl;
- 25 R14a is H, phenyl, benzyl, or C1-C4 alkyl;
  - $R^{15}$ , at each occurrence, is independently selected from H,  $C_1-C_4$  alkyl, benzyl, phenethyl,  $(C_1-C_4$  alkyl)-C(=0)-, and  $(C_1-C_4$  alkyl)- $S(=0)_2$ -;
- 30  $R^{16}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_4$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_4$  alkyl)-C(=0)-, and  $(C_1$ - $C_4$  alkyl)-S(=0)<sub>2</sub>-;
- 35 R<sup>17</sup> is H, methyl, ethyl, propyl, butyl, methoxymethyl, ethoxymethyl, methoxyethyl, ethoxyethyl, phenyl substituted by 0-3 R<sup>17a</sup>, or

-CH<sub>2</sub>-phenyl substituted by 0-3  $R^{17a}$ ;

R17a is H, methyl, methoxy, -OH, F, Cl, CF3, or OCF3;

- 5 R18, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
- R<sup>19</sup>, at each occurrence, is independently selected from H, methyl, and ethyl;

 $R^{20}$  is H or C(=0)OR<sup>17</sup>;

 $R^{26}$  is H, methyl, or ethyl.

[3] In another preferred embodiment the present invention provides a compound of Formula (I), wherein:

Ring C is selected from:

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wherein Ring C is substituted with  $0-2\ R^{21}$ ; and

Ring B is selected from:

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[4] In another more preferred embodiment the present invention provides a compound of Formula (I), wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $R^3$  is  $R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;

- 10  $R^4$  is  $C_1$ - $C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2$ - $C_6$  alkenyl substituted with 0-1  $R^{4a}$ , or  $C_2$ - $C_6$  alkynyl substituted with 0-1  $R^{4a}$ ;
- $R^{4a}$ , at each occurrence, is independently selected from H, OH, F,  $NR^{15}R^{16}$ ,  $CF_3$ , 15  $C_3-C_6$  carbocycle substituted with 0-3  $R^{4b}$ , phenyl substituted with  $0-3~R^{4b}$ , and 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle 20 is substituted with 0-3  $R^{4b}$ ; wherein said 5 to 6 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and 25 tetrazolyl;
- R4b, at each occurrence, is independently selected from H, OH, Cl, F, NR15R16, CF3, acetyl, SCH3, S(=0)CH3, S(=0)2CH3, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2 haloalkoxy;

W is a bond,  $-CH_2-$ ,  $-CH(CH_3)-$ ,  $-CH_2CH_2-$  or  $-CH(CH_3)CH_2-$ ;

X is a bond, phenyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, or 5 to 6 membered heterocycle;

5 Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -,

Z is H;  $C_1-C_6$  alkyl,  $C_2-C_4$  alkenyl,  $C_2-C_4$  alkynyl,  $C_1-C_3$  alkyl substituted with 1-2  $R^{12}$ ;  $C_2-C_3$  alkenyl substituted with 1-2  $R^{12}$ ; 10  $C_2-C_3$  alkynyl substituted with 1-2  $R^{12}$ ;  $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ; C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>12b</sup>; or 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and 15 sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3  $R^{12b}$ ; wherein said 5 to 6 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, 20 pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and tetrazolyl;

R12, at each occurrence, is independently selected from C6-C10 aryl substituted with 0-4 R12b; C3-C6 carbocycle substituted with 0-3 R12b; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R12b; wherein said 5 to 6 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and tetrazolyl;

R12b, at each occurrence, is independently selected from

H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

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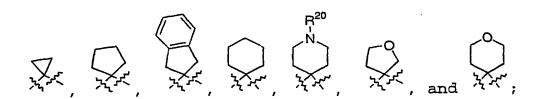
- R<sup>13</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, methoxy, ethoxy, Cl, F, Br, CN, NR<sup>15</sup>R<sup>16</sup>, and CF<sub>3</sub>;
- 10 R14 is H, phenyl, benzyl, methyl, ethyl, propyl, or butyl;
  - ${\bf R}^{15}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl;
- 15 R<sup>16</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, phenethyl, methyl-C(=0)-, ethyl-C(=0)-, methyl-S(=0)<sub>2</sub>-, ethyl-S(=0)<sub>2</sub>-, and propyl-S(=0)<sub>2</sub>-;
- 20 R<sup>18</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
- R<sup>19</sup>, at each occurrence, is independently selected from H, methyl, and ethyl;

 $R^{20}$  is H.

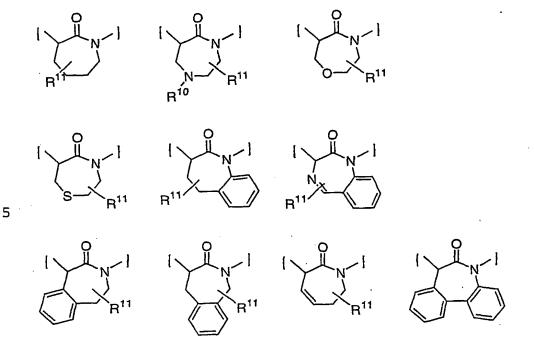
- [5] In another more preferred embodiment the present invention provides a compound of Formula (I), wherein:
  - L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

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-CH<sub>2</sub>CH<sub>2</sub>OCH<sub>3</sub>, -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub>, -CF<sub>2</sub>CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>,
          -CH (NHCH<sub>3</sub>) CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>, -CH (NHSO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>) CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>,
          cyclohexyl-, cyclopentyl-, cyclopropyl-CH2-,
          cyclobuty1-CH2-, cyclopenty1-CH2-, cyclohexy1-CH2-,
          cyclopropyl-CH2CH2-, cyclobutyl-CH2CH2-,
 5
          cyclopentyl-CH2CH2-, cyclohexyl-CH(OH)-,
          cyclohexyl-CH2CH2-, 1-NH2-cyclopentyl, phenyl-CH2-,
           (2-F-phenyl)CH_2-, (3-F-phenyl)CH_2-, (4-F-phenyl)CH_2-,
           (2-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2-, (4-Cl-phenyl)CH_2-,
           (2,3-diF-phenyl)CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>-,
10
           (2.5-diF-phenyl)CH<sub>2</sub>-, (2.6-diF-phenyl)CH<sub>2</sub>-,
           (3,4-diF-phenyl)CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>-,
           (2,3-diCl-phenyl)CH2-, (2,4-diCl-phenyl)CH2-,
           (2,5-diCl-phenyl)CH2-, (2,6-diCl-phenyl)CH2-,
           (3,4-diCl-phenyl)CH2-, (3,5-diCl-phenyl)CH2-,
15
           (3-F-4-Cl-phenyl)CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>-,
           (3-C1-4-F-phenyl)CH2-, phenyl-CH2CH2-,
           (2-F-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
           (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           (3-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
20
           (2,3-diF-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diF-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
           (2,5-dif-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-dif-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           (2,5-diCl-phenyl)CH2CH2-, (2,6-diCl-phenyl)CH2CH2-,
25
           (3,4-diCl-phenyl)CH2CH2-, (3,5-diCl-phenyl)CH2CH2-,
           (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, <math>(3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           4-piperidinyl-CH<sub>2</sub>CH<sub>2</sub>-, phenyl-CH<sub>2</sub>CH<sub>2</sub>CF<sub>2</sub>-,
           phenyl-CH<sub>2</sub>CH(OH)-, imidazolyl-CH<sub>2</sub>CH(OH)-, or
           phenyl-CH2OCH2-;
30
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Ring C is selected from:



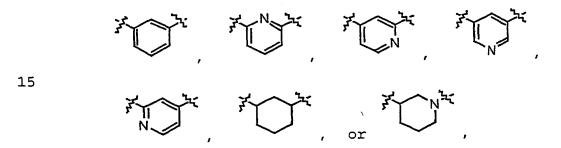
Ring B is selected from:



wherein each benzo fused ring is substituted with 0-1 R13;

10 W is a bond or -CH<sub>2</sub>-;

X is a bond;

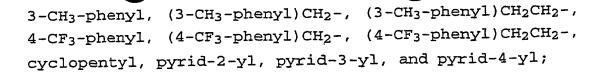


Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-, or  $-N(CH_3)$ -,

Z is phenyl, 2-F-phenyl, 3-F-phenyl, 4-F-phenyl, 2-Clphenyl, 3-Cl-phenyl, 4-Cl-phenyl, 2,3-diF-phenyl,
2,4-diF-phenyl, 2,5-diF-phenyl, 2,6-diF-phenyl,
3,4-diF-phenyl, 3,5-diF-phenyl, 2,3-diCl-phenyl,
2,4-diCl-phenyl, 2,5-diCl-phenyl, 2,6-diCl-phenyl,

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3,4-diCl-phenyl, 3,5-diCl-phenyl, 3-F-4-Cl-phenyl,
            3-F-5-Cl-phenyl, 3-Cl-4-F-phenyl, 2-MeO-phenyl,
            3-MeO-phenyl, 4-MeO-phenyl, 2-Me-phenyl, 3-Me-phenyl,
            4-Me-phenyl, 2-MeS-phenyl, 3-MeS-phenyl, 4-MeS-phenyl,
            2-CF<sub>3</sub>O-phenyl, 3-CF<sub>3</sub>O-phenyl, 4-CF<sub>3</sub>O-phenyl, furanyl,
 5
            thienyl, pyridyl, 2-Me-pyridyl, 3-Me-pyridyl,
            4-Me-pyridyl, 1-imidazolyl, oxazolyl, isoxazolyl,
            1-benzimidazolyl, cyclopropyl, cyclobutyl,
            cyclopentyl, cyclohexyl, morpholino, N-piperinyl,
            phenyl-CH_2-, (2-F-phenyl)CH_2-, (3-F-phenyl)CH_2-,
10
             (4-F-phenyl)CH_2-, (2-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2,
             (4-Cl-phenyl)CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>-,
             (2,4-diF-phenyl)CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>-,
             (2,6-diF-phenyl)CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>-,
             (3,5-diF-phenyl)CH_2-, (2,3-diCl-phenyl)CH_2-,
15
             (2,4-diCl-phenyl)CH2-, (2,5-diCl-phenyl)CH2-,
             (2,6-diCl-phenyl)CH2-, (3,4-diCl-phenyl)CH2-,
             (3,5-diCl-phenyl)CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>-,
             (3-F-5-Cl-phenyl)CH_2-, (3-Cl-4-F-phenyl)CH_2-,
             (2-MeO-phenyl)CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>-,
20
             (4-MeO-phenyl)CH_2-, (2-Me-phenyl)CH_2-,
             (3-Me-phenyl)CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>-,
             (2-MeS-phenyl)CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>-,
             4-MeS-phenyl)CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>-,
             (3-CF_3O-phenyl)CH_2-, (4-CF_3O-phenyl)CH_2-,
25
             (furany1)CH2-, (thieny1)CH2-, (pyridy1)CH2-,
             (2-Me-pyridyl)CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>-,
             (4-Me-pyridyl)CH<sub>2</sub>-, (1-imidazolyl)CH<sub>2</sub>-,
             (oxazolyl)CH<sub>2</sub>-, (isoxazolyl)CH<sub>2</sub>-,
             (1-benzimidazolyl)CH2-, (cyclopropyl)CH2-,
30
             (cyclobutyl) CH2-, (cyclopentyl) CH2-,
             (cyclohexyl) CH2-, (morpholino) CH2-,
             (N-pipridinyl)CH2-, phenyl-CH2CH2-,
             (phenyl) 2CHCH2-, (2-F-phenyl) CH2CH2-,
             (3-F-phenyl) CH<sub>2</sub>CH<sub>2</sub>-, (4-F-phenyl) CH<sub>2</sub>CH<sub>2</sub>-,
35
             (2-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (4-C1-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diF-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
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(2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (3,5-diF-phenyl)CH_2CH_2-, (2,3-diCl-phenyl)CH_2CH_2-,
              (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (2,6-diCl-phenyl)CH_2CH_2-, (3,4-diCl-phenyl)CH_2CH_2-,
 5
              (3,5-diCl-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
              (3-F-5-Cl-phenyl)CH_2CH_2-, (3-Cl-4-F-phenyl)CH_2CH_2-,
              (2-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (4-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (3-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
10
              (2-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (4-MeS-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (2-CF<sub>3</sub>O-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
              (3-CF_3O-pheny1)CH_2CH_2-, (4-CF_3O-pheny1)CH_2CH_2-,
              (furanyl)CH<sub>2</sub>CH<sub>2</sub>-,(thienyl)CH<sub>2</sub>CH<sub>2</sub>-, (pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (2-Me-pyridy1)CH<sub>2</sub>CH<sub>2</sub>-, (3-Me-pyridy1)CH<sub>2</sub>CH<sub>2</sub>-,
15
              (4-Me-pyridyl)CH_2CH_2-, (imidazolyl)CH_2CH_2-,
              (oxazolyl)CH_2CH_2-, (isoxazolyl)CH_2CH_2-,
              (benzimidazolyl)CH2CH2-,(cyclopropyl)CH2CH2-,
              (cyclobutyl) CH2CH2-, (cyclopentyl) CH2CH2-,
              (cyclohexyl) CH2CH2-, (morpholino) CH2CH2-, or
20
              (N-pipridinyl)CH2CH2-;
       R10 is H, methyl, ethyl, phenyl, benzyl, phenethyl,
          4-F-phenyl, (4-F-phenyl)CH<sub>2</sub>-, <math>(4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
          4-Cl-phenyl, (4-Cl-phenyl)CH2-, (4-Cl-phenyl)CH2CH2-,
25
          4-CH_3-phenyl, (4-CH_3-phenyl)CH_2-, (4-CH_3-phenyl)CH_2CH_2-,
          4-CF<sub>3</sub>-phenyl, (4-CF<sub>3</sub>-phenyl)CH<sub>2</sub>-, or
           (4-CF_3-pheny1)CH_2CH_2-;
       R11, at each occurrence, is independently selected from
30
          H, =0, methyl, ethyl, phenyl, benzyl, phenethyl,
           4-F-phenyl, (4-F-phenyl)CH_2-, (4-F-phenyl)CH_2CH_2-,
           3-F-phenyl, (3-F-phenyl)CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           2-F-phenyl, (2-F-phenyl)CH_2-, (2-F-phenyl)CH_2CH_2-,
           4-Cl-phenyl, (4-Cl-phenyl)CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
 35
           3-Cl-phenyl, (3-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2CH_2-,
           4-CH_3-phenyl, (4-CH_3-phenyl)CH_2-, (4-CH_3-phenyl)CH_2CH_2-,
```



5  $R^{13}$ , at each occurrence, is independently selected from H, F, Cl, OH, -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -OCH<sub>3</sub>, and -CF<sub>3</sub>; and

 $\mathbb{R}^{20}$  is H.

In another preferred embodiment the present invention provides a compound of Formula (I), wherein:

R<sup>3</sup> is 
$$-(CR^{7}R^{7a})_{n}-R^{4}$$
,  
 $-(CR^{7}R^{7a})_{1}-S-(CR^{7}R^{7a})_{m}-R^{4}$ ,  
 $-(CR^{7}R^{7a})_{1}-O-(CR^{7}R^{7a})_{m}-R^{4}$ , or  
 $-(CR^{7}R^{7a})_{1}-N(R^{7b})-(CR^{7}R^{7a})_{m}-R^{4}$ ;

n is 0, 1, or 2;

20 m is 0, 1, or 2;

1 is 1 or 2;

Ring C is a 3 to 8 membered carbocycle substituted with 0-4  $R^{21}$ ; optionally, the carbocycle contains a heteroatom selected from -0-, and -N( $R^{20}$ )-;

R<sup>4</sup> is H, OH, OR<sup>14a</sup>,

C<sub>1</sub>-C<sub>6</sub> alkyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkenyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3 R<sup>4a</sup>,

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, or

5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>4b</sup>;

15

R4a, at each occurrence, is independently selected from is H, F, Cl, Br, I, CF<sub>3</sub>,

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

 $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;

10  $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, and  $C_1-C_4$  haloalkoxy;

 $R^6$  is H, methyl, or ethyl;

 $R^7$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, phenyl and C<sub>1</sub>-C<sub>4</sub> alkyl;

 $R^{7a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, and C<sub>1</sub>-C<sub>4</sub> alkyl;

25 R<sup>7b</sup> is independently selected from H, methyl, ethyl, propyl, and butyl;

Ring B is a 7 membered lactam,

wherein the lactam is saturated, partially saturated or unsaturated;

wherein each additional lactam carbon is substituted with  $0-2\ R^{11}$ ; and,

optionally, the lactam contains a heteroatom selected from, -O-, -S-, -S(=O)-, -S(=O)<sub>2</sub>-, -N=, -NH-, and -  $N(R^{10})$ -;

 $R^{10}$  is H, C(=0) $R^{17}$ , C(=0) $OR^{17}$ , C(=0) $NR^{18}R^{19}$ ,

30

 $S(=0)_2NR^{\pm 6}R^{19}$ ,  $S(=0)_2R^{17}$ ;

 $C_1-C_6$  alkyl optionally substituted with 0-2  $R^{10a}$ ;

 $C_6-C_{10}$  aryl substituted with 0-4  $R^{10b}$ ;

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{10b}$ ; or

- 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>10b</sup>;
- 10 R<sup>10a</sup>, at each occurrence, is independently selected from H, C<sub>1</sub>-C<sub>6</sub> alkyl, OR<sup>14</sup>, Cl, F, Br, I, =0, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, phenyl substituted with 0-4 R<sup>10b</sup>; or 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>10b</sup>;
- $R^{10b}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , or  $CF_3$ ;
- R11, at each occurrence, is independently selected from H, C<sub>1</sub>-C<sub>4</sub> alkoxy, Cl, F, Br, I, =0, CN, NO<sub>2</sub>, NR<sup>18</sup>R<sup>19</sup>, C(=0)R<sup>17</sup>, C(=0)OR<sup>17</sup>, C(=0)NR<sup>18</sup>R<sup>19</sup>, S(=0)<sub>2</sub>NR<sup>18</sup>R<sup>19</sup>, CF<sub>3</sub>; C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 0-3 R<sup>11a</sup>; C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>11b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>11b</sup>; or 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>11b</sup>;
- $R^{11a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CR,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;
  - R11b, at each occurrence, is independently selected from

H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, and C<sub>1</sub>-C<sub>4</sub> haloalkoxy;

- 5 additionally, two R<sup>11</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-3 R<sup>13</sup>;
- additionally, two R<sup>11</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heteroaryl fused radical, wherein said 5 to 6 membered heteroaryl fused radical comprises 1 or 2 heteroatoms selected from N, 0, and S; wherein said 5 to 6 membered heteroaryl fused radical is substituted with 0-3 R<sup>13</sup>;
- additionally, two  $R^{11}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{13}$ ;
- 20 W is -(CR<sup>8</sup>R<sup>8a</sup>)p-;

p is 0, 1, or 2;

 $R^8$  and  $R^{8a}$ , at each occurrence, are independently selected from H, F,  $C_1$ - $C_3$  alkyl,  $C_2$ - $C_3$  alkenyl,  $C_2$ - $C_3$  alkynyl and  $C_3$ - $C_6$  cycloalkyl;

X is a bond;  $C_6-C_{10}$  aryl substituted with 0-3  $R^{Xb}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-2  $R^{Xb}$ ; or 5 to 10 membered heterocycle substituted with 0-2  $R^{Xb}$ ;

 $R^{\mathrm{Xb}}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, and C<sub>1</sub>-C<sub>4</sub> haloalkoxy;

Y is a bond or - (CR 9R9a) t-V-(CR9R9a) u-;

t is 0, 1, or 2;

5 u is 0, 1, or 2;

 $R^9$  and  $R^{9a}$ , at each occurrence, are independently selected from H, F,  $C_1\text{-}C_4$  alkyl or  $C_3\text{-}C_6$  cycloalkyl;

10 V is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)$ <sub>2</sub>-,  $-S(=0)NR^{19b}$ -,  $-NR^{19b}S(=0)$ -, or  $-S(=0)NR^{19b}$ -;

Z is H;

15  $C_1-C_3$  alkyl substituted with 1-2  $R^{12}$ ;  $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or 5 to 10 membered heterocycle substituted with 0-3  $R^{12b}$ ;

20

 $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, and  $C_1-C_4$  haloalkoxy;

- $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- 30  $R^{14}$  is H, phenyl, benzyl,  $C_1-C_6$  alkyl, or  $C_2-C_6$  alkoxyalkyl;
  - R14a is H, phenyl, benzyl, methyl, ethyl, propyl, or butyl;
- $R^{15}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl, benzyl, phenethyl,  $(C_1-C_6$  alkyl)-C(=0)-, and  $(C_1-C_6$  alkyl)- $S(=0)_2$ -;

- R16, at each occurrence, is independently selected from H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=0)<sub>2</sub>-;
- 5  $R^{17}$  is H,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, aryl substituted by 0-4  $R^{17a}$ , or  $-CH_2$ -aryl substituted by 0-4  $R^{17a}$ ;
- $R^{17a}$  is H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, butoxy, -OH, F, Cl, Br, I, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, S(0)CH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, or C<sub>1</sub>-C<sub>4</sub> haloalkyl;
- $R^{18}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-; and
  - $R^{19}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)- $S(=0)_2$ -
- 20  $R^{20}$  is H or C(=0) $R^{17}$ ;
- R21, at each occurrence, is independently selected from H, C1-C4 alkoxy, Cl, F, Br, I, =0, CN, NO2, NR18R19, C(=0)R17, C(=0)OR17, C(=0)NR18R19, S(=0)2NR18R19, CF3; C1-C6 alkyl optionally substituted with 0-3 R21a; C6-C10 aryl substituted with 0-3 R21b; C3-C10 carbocycle substituted with 0-3 R21b; or 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R21b;
- $R^{21a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ ; phenyl substituted with 0-3  $R^{21b}$ ;

C<sub>3</sub>-C<sub>6</sub> cy coalkyl substituted with 0-215; and 5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3  $R^{21b}$ ;

- $\mathbb{R}^{21b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,
- $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, 10  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- additionally, two  $\mathbb{R}^{21}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3-C_6$ carbocycle substituted with 0-3 R<sup>23</sup>; 15
  - additionally, two  $\mathbb{R}^{21}$  substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-4 R23; and
- 20  $\mathbb{R}^{23}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ .
- [6] In another preferred embodiment the present 25 invention provides a compound of Formula (I):

$$R^3-L$$
 $O$ 
 $R^6$ 
 $O$ 
 $W-X-Y-Z$ 
 $O$ 

30 or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

L is  $-NR^{26}C(=0)$ -,  $-C(=0)NR^{26}$ -,  $-NR^{26}C(=0)$ -,  $-OC(=0)NR^{26}$ , or  $-NR^{26}C$  (=0)  $NR^{26}-$ ;

 $R^3$  is  $-(CR^7R^{7a})n^{-R^4}$ ,  $-(CR^7R^{7a})1-S-R^4$ , 5  $-(CR^7R^{7a})1-O-R^4;$  $-(CR^7R^{7a})_1-N(R^{7b})-R^4$ ,  $-(CR^7R^{7a})1-S(=0)-R^4$ , or  $-(CR^7R^{7a})_1-S(=0)_2-R^4;$ 

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n is 0, 1 or 2;

1 is 1 or 2;

 $R^4$  is H, 15

 $C_1-C_8$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_8$  alkenyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_8$  alkynyl substituted with 0-3  $\mathbb{R}^{4a}$ ,

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

 $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or 20

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;

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 $\mathbb{R}^{4a}$ , at each occurrence, is independently selected from H, OH, F, Cl, Br, I, NR15R16, CF3,  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

 $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , and 5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle

is substituted with  $0-3 R^{4b}$ ;

 $\mathbb{R}^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO2,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ , 35  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,

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 $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

Ring C is a 3-8 membered carbocycle;

5 wherein said 3-8 membered carbocycle is saturated or partially unsaturated;

wherein said 3-8 membered carbocycle is substituted with 0-4  $R^{21}$ ; and

optionally, the carbocycle contains a heteroatom selected from -0- and  $-N(R^{20})-$ ;

additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-4 R<sup>23</sup>;

additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heteroaryl fused radical, wherein said 5 to 6 membered heteroaryl fused radical comprises 1 or 2 heteroatoms selected from N, O, and S; wherein said 5 to 6 membered heteroaryl fused radical is substituted with 0-3 R<sup>23</sup>;

additionally, two  $R^{21}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{23}$ ;

R<sup>21</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, NR<sup>15</sup>R<sup>16</sup>, OR<sup>14a</sup>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>6</sub>

alkenyl, alkynyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>3</sub>-C<sub>6</sub> carbocycle, phenyl, and a

5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur;

R<sup>6</sup> is H, methyl, or ethyl;

 $R^7$ , at each occurrence, is independently H or  $C_1$ - $C_4$  alkyl;  $R^{7a}$ , at each occurrence, is independently H or  $C_1$ - $C_4$  alkyl;  $R^{7b}$  is H or  $C_1$ - $C_4$  alkyl;

Ring B is selected from:

 $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$ 

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20

 $R^{10}$  is H,  $C(=0)R^{17}$ ,  $C(=0)OR^{17}$ ,  $C(=0)NR^{18}R^{19}$ ,  $S(=0)_2NR^{18}R^{19}$ ,  $S(=0)_2R^{17}$ ;

 $C_1-C_6$  alkyl optionally substituted with 0-3  $R^{10a}$ ;  $C_6-C_{10}$  aryl substituted with 0-4  $R^{10b}$ ;

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{10b}$ ; or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>10b</sup>;

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 $R^{10a}$ , at each occurrence, is independent, selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , or aryl substituted with 0-4  $R^{10b}$ ;

- 5  $R^{10b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 10 R<sup>11</sup>, at each occurrence, is independently selected from H,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, =0, CN, NO<sub>2</sub>, NR<sup>18</sup>R<sup>19</sup>, C(=0)R<sup>17</sup>, C(=0)OR<sup>17</sup>, C(=0)NR<sup>18</sup>R<sup>19</sup>, S(=0) $_2$ NR<sup>18</sup>R<sup>19</sup>, CF<sub>3</sub>;  $C_1$ - $C_6$  alkyl optionally substituted with 0-3 R<sup>11a</sup>;  $C_6$ - $C_{10}$  aryl substituted with 0-3 R<sup>11b</sup>;
- 15 C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>11b</sup>; and
  5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>11b</sup>;

20  ${\rm R^{11a},\ at\ each\ occurrence,\ is\ independently\ selected\ from\ } \\ {\rm H,\ C_{1}-C_{6}\ alkyl,\ OR^{14},\ Cl,\ F,\ Br,\ I,\ =0,\ CN,\ NO_{2},\ } \\ {\rm NR^{15}R^{16},\ CF_{3};}$ 

phenyl substituted with 0-3 R<sup>11b</sup>; C<sub>3</sub>-C<sub>6</sub> cycloalkyl substituted with 0-3 R<sup>11b</sup>; and 5 to 6 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with  $0-3\ R^{11b}$ ;

 $R^{11b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,

 $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

W is a bond or  $-(CH_2)_{p}-$ ;

25

p is 1 or 2;

X is a bond;

- phenyl substituted with 0-2  $R^{\mathrm{Xb}}$ ;  $C_3-C_6$  carbocycle substituted with 0-2  $R^{\mathrm{Xb}}$ ; or 5 5 to 6 membered heterocycle substituted with 0-2  $R^{\mathrm{Xb}}$ ;
- $\mathbf{R}^{\mathrm{Xb}}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ , 10  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_3$ haloalkyl,  $C_1$ - $C_3$  haloalkoxy, and  $C_1$ - $C_3$  halothioalkoxy;
- Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-,  $-S(=0)_2$ -,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ ,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)_2$ -,  $-S(=0)_2NR^{19b}$ ,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)O-, or 15 -OC(=O)-;

Z is H;

- $C_1-C_8$  alkyl substituted with 0-3  $R^{12a}$ ; 20 C2-C6 alkenyl substituted with 0-3 R12a;  $C_2-C_6$  alkynyl substituted with 0-3  $R^{12a}$ ;  $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or
- 5 to 10 membered heterocycle containing 1 to 4 25 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{12b}$ ;
- $\mathbb{R}^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , -C (=0)  $NR^{15}R^{16}$ , 30  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-,
- $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ; 35  $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; and

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;

5 ·

 $R^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

 $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;

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- $R^{14}$  is H, phenyl, benzyl,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, or  $C_3$ - $C_6$  cycloalkyl;
  - R14a is H, phenyl, benzyl, or C1-C4 alkyl;

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- $R^{15}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- 25 R<sup>16</sup>, at each occurrence, is independently selected from H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=0)<sub>2</sub>-;
- $R^{17}$  is H,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, 30 aryl substituted by 0-4  $R^{17a}$ , or - $CH_2$ -aryl substituted by 0-4  $R^{17a}$ ;
- R17a is H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, butoxy, -OH, F, Cl, Br, I, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, S(O)CH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, or C<sub>1</sub>-C<sub>4</sub> haloalkyl;
  - $\mathbb{R}^{18}$ , at each occurrence, is independently selected from

H,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;

- R<sup>19</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
  - $R^{19b}$ , at each occurrence, is independently is H or  $C_1-C_4$  alkyl;
- 10  $R^{20}$  is H,  $C_1$ - $C_4$  alkyl, or  $C(=0)OR^{17}$ ;
- $R^{23}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN, NO<sub>2</sub>,  $NR^{15}R^{16}$ , and  $CF_3$ ; and

 $\mathbb{R}^{26}$  is H or  $\mathbb{C}_1$ - $\mathbb{C}_4$  alkyl.

[7] In another preferred embodiment the present invention provides a compound of Formula (Ia):

or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

L is  $-NR^{26}C(=0)-$ ,  $-C(=0)NR^{26}-$ ,  $-NR^{26}C(=0)O-$ ,  $-OC(=0)NR^{26}$ , or  $-NR^{26}C(=0)NR^{26}-$ ;

30  $R^3$  is  $-(CHR^7)_n-R^4$ ,

- $-(CHR^7)_1-S-R^4$ ,
- $-(CHR^7)_{1}-O-R^4;$
- $-(CR^7R^{7a})_{1}-N(R^{7b})_{-R^4}$

 $-(CR^7R^{7a})(-S(=0)-R^4)$ , or  $-(CR^7R^{7a})_{1}-S(=0)_{2}-R^4;$ 

n is 0, 1 or 2;

5

1 is 1 or 2;

R4 is H,

 $C_1-C_8$  alkyl substituted with 0-3  $\mathbb{R}^{4a}$ ,  $C_2$ - $C_8$  alkenyl substituted with 0-3  $R^{4a}$ , 10  $C_2$ - $C_8$  alkynyl substituted with 0-3  $R^{4a}$ ,  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,  $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and 15 sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;

 $\mathbb{R}^{4a}$ , at each occurrence, is independently selected from H, OH, F, Cl, Br, I,  $NR^{15}R^{16}$ ,  $CF_3$ , 20  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,  $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle 25 is substituted with 0-3 R4b;

 $\mathbb{R}^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>,  $NR^{15}R^{16}$ , CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , 30  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

Ring C is a 3-8 membered carbocycle; wherein said 3-8 membered carbocycle is saturated or 35 partially unsaturated;

wherein said 3-8 membered carbocycle is substituted with 0-4  $\mathbb{R}^{21}$ ;

optionally, the carbocycle contains a heteroatom selected from -O-, and  $-N(R^{20})$ -;

5

- additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-4 R<sup>23</sup>;
- 10 additionally, two  $R^{21}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{23}$ ;
- R<sup>21</sup>, at each occurrence, is independently selected from H,
  OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,
  S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, NR<sup>15</sup>R<sup>16</sup>, OR<sup>14a</sup>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>6</sub>
  alkenyl, alkynyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,
  C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-,
  C<sub>3</sub>-C<sub>6</sub> carbocycle, phenyl, and a
- 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur;
- $\mathbb{R}^7$ , at each occurrence, is independently H, methyl, or ethyl;

 $R^{7b}$  is H, methyl, or ethyl;

Ring B is selected from:

(

R11, at each occurrence, is independently selected from H, C1-C4 alkoxy, Cl, F, Br, I, =0, CN, NO2, NR18R19, C(=0)R17, C(=0)OR17, C(=0)NR18R19, S(=0)2NR18R19, CF3; C1-C6 alkyl optionally substituted with 0-3 R11a; C6-C10 aryl substituted with 0-3 R11b; C3-C10 carbocycle substituted with 0-3 R11b; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R11b;

R11a, at each occurrence, is independently selected from H, C1-C6 alkyl, OR14, Cl, F, Br, I, =0, CN, NO2, NR15R16, CF3; phenyl substituted with 0-3 R11b; C3-C6 cycloalkyl substituted with 0-3 R11b; and 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R11b;

R<sup>11b</sup>, at each occurrence, is independently selected from H,
OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,
S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,
C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,
C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

30 W is a bond or  $-(CH_2)_{p}$ -;

p is 1 or 2;

X is a bond;
35 phenyl substituted with 0-2 RXb;

 $C_3$ - $C_6$  carbocycle substituted with 0-2  $R^{\mathrm{Xb}}$ ; or 5 to 6 membered heterocycle substituted with 0-2  $R^{\mathrm{Xb}}$ ;

- $R^{\mathrm{Xb}}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>3</sub> alkoxy, C<sub>1</sub>-C<sub>3</sub> haloalkyl, C<sub>1</sub>-C<sub>3</sub> haloalkoxy, and C<sub>1</sub>-C<sub>3</sub> halothicalkoxy;
- Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-,  $-N(R^{19})$ 
  10 ,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)$ <sub>2</sub>-, -S(=0)<sub>2</sub> $NR^{19b}$ -,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)0-, or -OC(=0)-;

Z is H;

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- 15  $C_1$ - $C_8$  alkyl substituted with 0-3  $R^{12a}$ ;  $C_2$ - $C_6$  alkenyl substituted with 0-3  $R^{12a}$ ;  $C_2$ - $C_6$  alkynyl substituted with 0-3  $R^{12a}$ ;  $C_6$ - $C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;  $C_3$ - $C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or
- 5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
- 25 R<sup>12a</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=0)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;
- C<sub>3</sub>-C<sub>10</sub> aryr substituted with 0-4 R<sup>12b</sup>; and
  5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
  - $\mathbb{R}^{12b}$ , at each occurrence, is independently selected from

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H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

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- $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- 10  $R^{14}$  is H, phenyl, benzyl,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, or  $C_3$ - $C_6$  cycloalkyl;
  - R14a is H, phenyl, benzyl, or C1-C4 alkyl;
- 15  $R^{15}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- R<sup>16</sup>, at each occurrence, is independently selected from H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=O)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=O)<sub>2</sub>-;
- $R^{17}$  is H,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, aryl substituted by 0-4  $R^{17a}$ , or -CH<sub>2</sub>-aryl substituted by 0-4  $R^{17a}$ ;
  - R<sup>17a</sup> is H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, butoxy, -OH, F, Cl, Br, I, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, S(O)CH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, or C<sub>1</sub>-C<sub>4</sub> haloalkyl;

- $R^{18}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- 35 R<sup>19</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, phenyl, benzyl, phenethyl;

 $R^{20}$  is H,  $C_1-C_4$  alkyl, or  $C(=0)OR^{17}$ ;

 $R^{23}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ; and

 $\mathbb{R}^{26}$  is H or  $C_1-C_4$  alkyl.

10 [8] In another preferred embodiment the present invention provides a compound of Formula (Ic):

or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

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$$R^3$$
 is  $-(CH_2)_n-R^4$ ,  
 $-(CH_2)_1-S-R^4$ ,  
 $-(CH_2)_1-O-R^4$ , or  
 $-(CH_2)_1-N(R^{7b})-R^4$ ;

25 n is 0, 1 or 2;

1 is 1 or 2;

 $R^4$  is  $C_1-C_8$  alkyl substituted with 0-3  $R^{4a}$ , 30  $C_2-C_8$  alkenyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_8$  alkynyl substituted with 0-3  $R^{4a}$ ,  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

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 $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or

- 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;
- R<sup>4a</sup>, at each occurrence, is independently selected from H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>4b</sup>;
- R<sup>4b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

R<sup>7b</sup> is H, methyl, or ethyl;

Ring C is a 3-8 membered carbocycle;

wherein said 3-8 membered carbocycle is saturated or
partially unsaturated;

wherein said 3-8 membered carbocycle is substituted

with 0-3 R<sup>21</sup>;

optionally, the carbocycle contains a heteroatom selected from -O-, and  $-N(R^{20})-$ ;

R<sup>21</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,  $S(=0) CH_3, \ S(=0)_2 CH_3, \ NR^{15}R^{16}, \ OR^{14a}, \ C_1-C_4 \ alkyl, \ C_2-C_4 \ alkenyl, \ C_2-C_4 \ alkynyl, \ C_1-C_4 \ alkoxy, \ C_1-C_4 \ haloalkyl, \\ C_1-C_4 \ haloalkoxy, \ and \ C_1-C_4 \ haloalkyl-S-;$ 

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

X is a bond;

phenyl substituted with 0-2 R<sup>Xb</sup>;

C<sub>3</sub>-C<sub>6</sub> cycloalkyl substituted with 0-2 R<sup>Xb</sup>; or

5 to 6 membered heterocycle substituted with 0-2 R<sup>Xb</sup>;

 $R^{XD}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)$ <sub>2</sub>-, -S(=0)<sub>2</sub> $NR^{19b}$ -,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)0-, or -OC(=0)-;

Z is H;

C1-C8 alkyl substituted with 0-3 R<sup>12a</sup>;

C2-C6 alkenyl substituted with 0-3 R<sup>12a</sup>;

C2-C6 alkynyl substituted with 0-3 R<sup>12a</sup>;

C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;

C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or

5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;

R12a, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=0)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

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sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{12b}$ ;

- R12b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 10  $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;

R14a is H, phenyl, benzyl, or C1-C4 alkyl;

- 15  $R^{15}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_4$  alkyl)-C(=O)-, and  $(C_1$ - $C_4$  alkyl)-S(=O)<sub>2</sub>-;
- 20  $R^{16}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1-C_4 \text{ alkyl})-C(=0)-, \text{ and } (C_1-C_4 \text{ alkyl})-S(=0)_2-; \text{ and }$

 $R^{20}$  is H or  $C_1-C_4$  alkyl.

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[9] In another preferred embodiment the present invention provides a compound of Formula (Ic) wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $ext{R}^3$  is  $- ext{R}^4$ ,  $- ext{CH}_2 ext{R}^4$ ,  $- ext{CH}_2 ext{CR}^4$ , or  $- ext{CH}_2 ext{CH}_2 ext{OR}^4$ ;

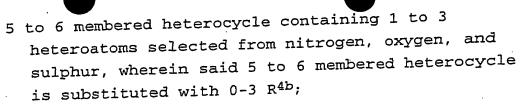
R<sup>4</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkenyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3 R<sup>4a</sup>,

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

phenyl substituted with 0-3 R<sup>4b</sup>, or



 $R^{4a}$ , at each occurrence, is independently selected from H, OH, F, Cl, Br, I,  $NR^{15}R^{16}$ ,  $CF_3$ ,  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{4b}$ , phenyl substituted with 0-3  $R^{4b}$ , and

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5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R4b;

15  $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

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Ring C is a 3-6 membered carbocycle;

wherein said 3-6 membered carbocycle is saturated or

partially unsaturated;

wherein said 3-6 membered carbocycle is substituted

wherein said 3-6 membered carbocycle is substituted with 0-2  $\mathbb{R}^{21}$ ;

optionally, the carbocycle contains a heteroatom selected from -O-, and  $-N(R^{20})-$ ;

R<sup>21</sup>, at each occurrence, is independently selected from H,
OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, methyl,
ethyl, methoxy, ethoxy, allyl, -OCF<sub>3</sub>, and -SCF<sub>3</sub>;

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

35 X is a bond;

phenyl substituted with 0-1  $R^{Xb}$ ;  $C_3-C_6$  cycloalkyl substituted with 0-1  $R^{Xb}$ ; or

5 to 6 membered heterocycle substituted with 0-1 RXb;

 $R^{\rm XD}$  is selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, methoxy, ethoxy, propoxy, and  $-OCF_3$ ;

Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

is substituted with 0-3 R<sup>12b</sup>;

R12a, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=0)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 —

heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;

R12b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

 $\mathbb{R}^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;

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- $R^{15}$ , at each occurrence, is independently selected from H,  $C_1-C_4$  alkyl, and benzyl;
- $\mathbb{R}^{16}$ , at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, 10 phenethyl, methyl-C(=0)-, ethyl-C(=0)-, methyl-S(=0)<sub>2</sub>-, ethyl-S(=0)<sub>2</sub>-, and propyl-S(=0)<sub>2</sub>-; and

 $R^{20}$  is H or  $C_1-C_4$  alkyl.

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- [10] In another preferred embodiment the present invention provides a compound of Formula (Ic) wherein:
- L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

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- $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;
- $R^4$  is  $C_1-C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2$ - $C_6$  alkenyl substituted with 0-3  $R^{4a}$ , or  $C_2$ - $C_6$  alkynyl substituted with 0-3  $R^{4a}$ ; 25
  - R4a, at each occurrence, is independently selected from is H, OH, F, Cl, Br, I,  $NR^{15}R^{16}$ ,  $CF_3$ ,

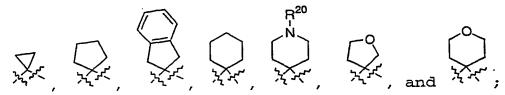
 $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{4b}$ ,

- phenyl substituted with  $0-3\ R^{4b}$ , and 30
- 5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R4b; wherein said 5 to 6 membered heterocycle is selected from pyridinyl, 35

pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and tetrazolyl;

 $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

10 Ring C is a 3-6 membered carbocycle selected from:



wherein said 3-6 membered carbocycle is substituted with 0-1  $R^{21}$ ;

15
R<sup>21</sup> is selected from H, OH, Cl, F, CN, CF<sub>3</sub>, methyl, ethyl, methoxy, ethoxy, allyl, and -OCF<sub>3</sub>;

W is a bond or -CH<sub>2</sub>-;

X is a bond, phenyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl or 5 to 6 membered heterocycle;

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

Z is H;

C1-C8 alkyl substituted with 0-3 R<sup>12a</sup>;

C2-C6 alkenyl substituted with 0-3 R<sup>12a</sup>;

C2-C6 alkynyl substituted with 0-3 R<sup>12a</sup>;

C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;

C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or

5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle is substituted with  $0-3\ R^{12b}$ ;

- $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy; phenyl substituted with 0-4  $R^{12b}$ ;
- 10 C<sub>3</sub>-6 carbocycle substituted with 0-4 R<sup>12b</sup>; and
  5 to 6 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 6 membered heterocycle

is substituted with  $0-3~R^{12b}$ ;

- 15
  R12b, at each occurrence, is independently selected from H, OH, Cl, F, NR15R16, CF3, acetyl, SCH3, S(=0)CH3, S(=0)2CH3, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2
  haloalkoxy;
  - $R^{13}$ , at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, methoxy, ethoxy, Cl, F, Br, CN,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- $R^{15}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and
- R16, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, and phenethyl; and
  - $\mathbb{R}^{20}$  is H, methyl, or ethyl.
- 35 [11] In another preferred embodiment the present invention provides a compound of Formula (Ic) wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

Ring C is selected from:

5  $R^3$  is  $-CH_3$ ,  $-CH_2CH_3$ ,  $-CH_2CH_2CH_3$ ,  $-CH_2CH_2CH_3$ ,  $-CH_2CH_2CH(CH_3)_2$ ,  $-CH_2(CH_3)_2$ ,  $-CH(CH_3)CH_2CH_3$ ,  $-CH_2CH(CH_3)_2$ ,  $-CH_2C(CH_3)_3$ ,  $-CF_3$ ,  $-CH_2CF_3$ ,  $-CH_2CH_2CF_3$ ,  $-CH_2CH_2CH_2CF_3$ ,  $-\mathrm{CH}\left(\mathrm{OH}\right)\mathrm{CH}_{2}\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},\ -\mathrm{CH}\left(\mathrm{OH}\right)\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},\ -\mathrm{CH}\left(\mathrm{NH}_{2}\right)\mathrm{CH}_{2}\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},$ 10 -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>3</sub>, -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub>, -CF<sub>2</sub>CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>,-CH(NHCH<sub>3</sub>)CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, -CH(NHSO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>)CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, cyclohexyl-, cyclopentyl-, cyclopropyl-CH2-,  $cyclobutyl-CH_2-$ ,  $cyclopentyl-CH_2-$ ,  $cyclohexyl-CH_2-$ , cyclopropyl-CH<sub>2</sub>CH<sub>2</sub>-, cyclobutyl-CH<sub>2</sub>CH<sub>2</sub>-, 15 cyclopentyl-CH<sub>2</sub>CH<sub>2</sub>-, cyclohexyl-CH(OH)-,  $cyclohexyl-CH_2CH_2-$ ,  $1-NH_2-cyclopentyl$ ,  $phenyl-CH_2-$ ,  $(2-F-pheny1)CH_2-$ ,  $(3-F-pheny1)CH_2-$ ,  $(4-F-pheny1)CH_2-$ ,  $(2-Cl-phenyl)CH_2-$ ,  $(3-Cl-phenyl)CH_2-$ ,  $(4-Cl-phenyl)CH_2-$ , (2,3-diF-phenyl)CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>-,20 (2,5-diF-phenyl)CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>-,(3,4-diF-phenyl)CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>-,(2,3-diCl-phenyl)CH<sub>2</sub>-, (2,4-diCl-phenyl)CH<sub>2</sub>-,(2,5-diCl-phenyl)CH2-, (2,6-diCl-phenyl)CH2-, (3,4-diCl-phenyl)CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>-, 25  $(3-F-4-Cl-phenyl)CH_2-$ ,  $(3-F-5-Cl-phenyl)CH_2-$ , (3-C1-4-F-phenyl)CH2-, phenyl-CH2CH2-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(3-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,30 (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, $(2,3-diCl-phenyl)CH_2CH_2-, (2,4-diCl-phenyl)CH_2CH_2-,$  $(2,5-diCl-phenyl)CH_2CH_2-, (2,6-diCl-phenyl)CH_2CH_2-,$ 

(3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, 4-piperidinyl-CH<sub>2</sub>CH<sub>2</sub>-, phenyl-CH<sub>2</sub>CH<sub>2</sub>CF<sub>2</sub>-, phenyl-CH<sub>2</sub>CH(OH)-, imidazolyl-CH<sub>2</sub>CH(OH)-, or phenyl-CH<sub>2</sub>OCH<sub>2</sub>-;

W is a bond or -CH<sub>2</sub>-;

X is a bond;

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15 Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-, or  $-N(CH_3)$ -,

Z is methyl, ethyl, i-propyl, n-propyl, n-butyl, i-butyl, s-butyl, t-butyl, allyl, phenyl, 2-F-phenyl,

3-F-phenyl, 4-F-phenyl, 2-Cl-phenyl, 3-Cl-phenyl, 4-Cl-phenyl, 2,3-diF-phenyl,

2,4-diF-phenyl, 2,5-diF-phenyl, 2,6-diF-phenyl,

3,4-diF-phenyl, 3,5-diF-phenyl, 2,3-diCl-phenyl,

2,4-diCl-phenyl, 2,5-diCl-phenyl, 2,6-diCl-phenyl,

3,4-diCl-phenyl, 3,5-diCl-phenyl, 3-F-4-Cl-phenyl,

3-F-5-Cl-phenyl, 3-Cl-4-F-phenyl, 2-MeO-phenyl,

3-MeO-phenyl, 4-MeO-phenyl, 2-Me-phenyl, 3-Me-phenyl,

4-Me-phenyl, 2-MeS-phenyl, 3-MeS-phenyl, 4-MeS-phenyl,

2-CF<sub>3</sub>O-phenyl, 3-CF<sub>3</sub>O-phenyl, 4-CF<sub>3</sub>O-phenyl, furanyl,

thienyl, pyridyl, 2-Me-pyridyl, 3-Me-pyridyl,

4-Me-pyridyl, 1-imidazolyl, oxazolyl, isoxazolyl,

1-benzimidazolyl, cyclopropyl, cyclobutyl,

cyclopentyl, cyclohexyl, morpholino, N-piperinyl,

phenyl- $CH_2$ -, (2-F-phenyl) $CH_2$ -, (3-F-phenyl) $CH_2$ -,

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(4-F-pheny1)CH_2-, (2-Cl-pheny1)CH_2-, (3-Cl-pheny1)CH_2,
               (4-C1-phenyl)CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>-,
               (2,4-diF-phenyl)CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>-,
               (2,6-diF-phenyl)CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>-,
               (3,5-diF-phenyl)CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>-,
 5
               (2,4-dicl-phenyl)CH<sub>2</sub>-, (2,5-dicl-phenyl)CH<sub>2</sub>-,
               (2,6-dicl-phenyl)CH_2-, (3,4-dicl-phenyl)CH_2-,
               (3,5-diCl-phenyl)CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>-,
               (3-F-5-Cl-phenyl)CH<sub>2</sub>-, (3-Cl-4-F-phenyl)CH<sub>2</sub>-,
               (2-MeO-phenyl)CH2-, (3-MeO-phenyl)CH2-,
10
               (4-MeO-phenyl)CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>-,
               (3-Me-phenyl)CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>-,
               (2-MeS-phenyl)CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>-,
               4-MeS-phenyl)CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>-,
               (3-CF_3O-phenyl)CH_2-, (4-CF_3O-phenyl)CH_2-,
15
               (furanyl)CH2-, (thienyl)CH2-, (pyridyl)CH2-,
               (2-Me-pyridyl)CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>-,
               (4-Me-pyridyl)CH2-, (1-imidazolyl)CH2-,
               (oxazolyl)CH2-, (isoxazolyl)CH2-,
               (1-benzimidazolyl)CH2-, (cyclopropyl)CH2-,
20
               (cyclobutyl) CH2-, (cyclopentyl) CH2-,
               (cyclohexyl) CH2-, (morpholino) CH2-,
               (N-pipridinyl)CH2-, phenyl-CH2CH2-,
               (phenyl) 2CHCH2-, (2-F-phenyl) CH2CH2-,
               (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
25
               (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (4-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
30
               (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (2-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
35
                (4-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
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(2-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(4-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(furanyl)CH<sub>2</sub>CH<sub>2</sub>-, (thienyl)CH<sub>2</sub>CH<sub>2</sub>-, (pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
(4-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (imidazolyl)CH<sub>2</sub>CH<sub>2</sub>-,
(oxazolyl)CH<sub>2</sub>CH<sub>2</sub>-, (isoxazolyl)CH<sub>2</sub>CH<sub>2</sub>-,
(benzimidazolyl)CH<sub>2</sub>CH<sub>2</sub>-, (cyclopropyl)CH<sub>2</sub>CH<sub>2</sub>-,
(cyclobutyl)CH<sub>2</sub>CH<sub>2</sub>-, (cyclopentyl)CH<sub>2</sub>CH<sub>2</sub>-,
(cyclohexyl)CH<sub>2</sub>CH<sub>2</sub>-, (morpholino)CH<sub>2</sub>CH<sub>2</sub>-, or

 $R^{13}$ , at each occurrence, is independently selected from H, F, Cl, OH, -CH3, -CH2CH3, -OCH3, or -CF3.

15  $\mathbb{R}^{20}$  is H, methyl, or ethyl.

(N-pipridinyl)CH2CH2-;

[12] In another preferred embodiment the present invention provides a compound of Formula (Id) and (Ie)

 $R^{3}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$   $R^{13}$ 

or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

25 L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $R^3$  is  $-(CH_2)_n-R^4$ ,  $-(CH_2)_1-S-R^4$ ,  $-(CH_2)_1-O-R^4$ , or  $-(CH_2)_1-N(R^{7b})-R^4$ ;

n is 0, 1 or 2;

l is 1 or 2;

R<sup>4</sup> is C<sub>1</sub>-C<sub>8</sub> alkyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>8</sub> alkenyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>8</sub> alkynyl substituted with 0-3 R<sup>4a</sup>,

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, or

5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>4b</sup>;

R<sup>4a</sup>, at each occurrence, is independently selected from
H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,
C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,
C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>4b</sup>;

R<sup>4b</sup>, at each occurrence, is independently selected from H,
OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,
S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,
C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,
C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

R<sup>7b</sup> is H, methyl, or ethyl;

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Ring C is a 3-8 membered carbocycle;

wherein said 3-8 membered carbocyclic moiety is

saturated or partially saturated;

wherein said 3-8 membered carbocyclic moiety is

substituted with 0-3 R<sup>21</sup>;

optionally, the carbocycle contains a heteroatom selected from -O- and -N(R<sup>20</sup>)-;

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- $R^{21}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)2CH<sub>3</sub>,  $NR^{15}R^{16}$ ,  $OR^{14a}$ ,  $C_1$ -C<sub>4</sub> alkyl,  $C_2$ -C<sub>4</sub> alkenyl,  $C_2$ -C<sub>4</sub> alkynyl,  $C_1$ -C<sub>4</sub> alkoxy,  $C_1$ -C<sub>4</sub> haloalkyl,  $C_1$ -C<sub>4</sub> haloalkoxy, and  $C_1$ -C<sub>4</sub> haloalkyl-S-;
- R11, at each occurrence, is independently selected from H, =0, NR18R19, CF3;

  C1-C4 alkyl optionally substituted with 0-1 R11a; phenyl substituted with 0-3 R11b; C3-C6 carbocycle substituted with 0-3 R11b; and 5 to 7 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 7 membered heterocycle is substituted with 0-3 R11b; wherein said 5 to 7 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl,
  - $R^{11a}$ , at each occurrence, is independently selected from H,  $C_1-C_4$  alkyl,  $OR^{14}$ , F, Cl, =0,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;

homopiperidinyl, and tetrazolyl;

pyrazolyl, imidazolyl, oxazolyl, isoxazolyl,

 $R^{11b}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

X is a bond;

phenyl substituted with 0-2 RXb;

C3-C6 cycloalkyl substituted with 0-2 RXb; or

5 to 6 membered heterocycle substituted with 0-2 RXb;

- $R^{Xb}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;
- Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-,  $-S(=0)_2$ -,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)_2$ -,  $-S(=0)_2NR^{19b}$ -,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)0-, or -OC(=0)-;
- Z is H;

  C1-C8 alkyl substituted with 0-3 R<sup>12a</sup>;

  C2-C6 alkenyl substituted with 0-3 R<sup>12a</sup>;

  C2-C6 alkynyl substituted with 0-3 R<sup>12a</sup>;

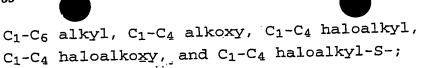
  C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;

  C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or

  5 to 10 membered heterocycle containing 1 to 4

  heteroatoms selected from nitrogen, oxygen, and

  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
- R12a, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=0)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;
- 35  $R^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,



- $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
  - $R^{14}$  is H, phenyl, benzyl,  $C_1-C_6$  alkyl,  $C_2-C_6$  alkoxyalkyl, or  $C_3-C_6$  cycloalkyl;
- 10 R14a is H, phenyl, benzyl, or  $C_1-C_4$  alkyl;
- $R^{15}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl, benzyl, phenethyl,  $(C_1-C_6$  alkyl)-C(=0)-, and  $(C_1-C_6$  alkyl)- $S(=0)_2$ -;
  - $R^{16}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1-C_4 \text{ alkyl})-C(=0)-, \text{ and } (C_1-C_4 \text{ alkyl})-S(=0)_2-;$
- 20
  R18, at each occurrence, is independently selected from H, C1-C6 alkyl, phenyl, benzyl, phenethyl, (C1-C6 alkyl)-C(=0)-, and (C1-C6 alkyl)-S(=0)2-;
- 25 R<sup>19</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, phenyl, benzyl, phenethyl; and
  - $\mathbb{R}^{20}$  is H or  $\mathbb{C}_1$ - $\mathbb{C}_4$  alkyl.
- [13] In another preferred embodiment the present invention provides a compound of Formula (Id) and (Ie) wherein:
- 35 L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;  $R^3 \text{ is } -R^4, -CH_2R^4, -CH_2CH_2R^4, -CH_2OR^4, \text{ or } -CH_2CH_2OR^4;$

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R4 is C<sub>1</sub>-C<sub>6</sub> alkyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkenyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3 R<sup>4a</sup>,

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

phenyl substituted with 0-3 R<sup>4b</sup>, or

5 to 6 membered heterocycle containing 1 to 3

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 6 membered heterocycle
is substituted with 0-3 R<sup>4b</sup>;

R<sup>4a</sup>, at each occurrence, is independently selected from is H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>, phenyl substituted with 0-3 R<sup>4b</sup>, or 5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle

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R<sup>4b</sup>, at each occurrence, is independently selected from H,
OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,
S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,
C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,
C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

is substituted with 0-3 R4b;

Ring C is a 3-6 membered carbocycle;

wherein said 3-6 membered carbocyclic moiety is

saturated or partially unsaturated;

wherein said 3-6 membered carbocyclic moiety is

substituted with 0-2 R<sup>21</sup>;

optionally, the carbocycle contains a heteroatom

selected from -O- and -N(R<sup>20</sup>)-;

35  $R^{21}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, methyl, ethyl, methoxy, ethoxy, allyl, -OCF<sub>3</sub>, and -SCF<sub>3</sub>;

R11, at each occurrence, is independently selected from  $H, = 0, NR^{18}R^{19}, CF_3;$  $C_1$ - $C_4$  alkyl optionally substituted with 0-1  $R^{11a}$ ; phenyl substituted with 0-3 R11b; 5 C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>11b</sup>; and 5 to 7 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 7 membered heterocycle is substituted with 0-3  $R^{11b}$ ; wherein said 5 to 7 10 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, homopiperidinyl, and tetrazolyl; 15

R11a, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, phenoxy, F, Cl, =0, NR15R16, CF3, or phenyl substituted with 0-3 R11b;

 $R^{11b}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1$ - $C_2$  haloalkyl, and  $C_1$ - $C_2$  haloalkoxy;

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

X is a bond;

phenyl substituted with 0-1 RXb;

C3-C6 cycloalkyl substituted with 0-1 RXb; or

5 to 6 membered heterocycle substituted with 0-1 RXb;

 $R^{\rm Xb}$  is selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, methyl, ethyl, propyl, methoxy, ethoxy, propoxy, and -OCF<sub>3</sub>;

20

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

Z is H;

- C<sub>1</sub>-C<sub>8</sub> alkyl substituted with 0-3 R<sup>12a</sup>;
  C<sub>2</sub>-C<sub>6</sub> alkenyl substituted with 0-3 R<sup>12a</sup>;
  C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3 R<sup>12a</sup>;
  C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;
  C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; or
  5 to 10 membered heterocycle containing 1 to 4
- 5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
- 15 R<sup>12a</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=0)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; or 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

is substituted with 0-3 R12b;

R<sup>12b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,  $C_{1}-C_{6} \text{ alkyl}, C_{1}-C_{4} \text{ alkoxy}, C_{1}-C_{4} \text{ haloalkyl}, \\ C_{1}-C_{4} \text{ haloalkoxy}, \text{ and } C_{1}-C_{4} \text{ haloalkyl}-S_{-};$ 

sulphur, wherein said 5 to 10 membered heterocycle

- $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN, NO<sub>2</sub>,  $NR^{15}R^{16}$ , and  $CF_3$ ;
  - R14 is H, phenyl, benzyl, C1-C4 alkyl, or C2-C4 alkoxyalkyl;

25

- R15, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, benzyl, and phenethyl;
- H, OH, methyl, ethyl, propyl, butyl, benzyl, phenethyl, methyl-C(=0)-, ethyl-C(=0)-, methyl-S(=0)2-, and ethyl-S(=0)2-;
- 10 R<sup>18</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
- R<sup>19</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl;
  - $\mathbb{R}^{20}$  is H or  $\mathbb{C}_1$ - $\mathbb{C}_4$  alkyl.
- [14] In another preferred embodiment the present invention provides a compound of Formula (Id) and (Ie) wherein:
  - L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;
- 25  $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;
  - $R^4$  is  $C_1-C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_6$  alkenyl substituted with 0-3  $R^{4a}$ , or  $C_2-C_6$  alkynyl substituted with 0-3  $R^{4a}$ ;
- $R^{4a}$ , at each occurrence, is independently selected from is H, OH, F, Cl, Br, I,  $NR^{15}R^{16}$ ,  $CF_3$ ,  $C_3-C_6$  carbocycle substituted with 0-3  $R^{4b}$ , phenyl substituted with 0-3  $R^{4b}$ , or
- 5 to 6 membered heterocycle containing 1 to 3
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 6 membered heterocycle

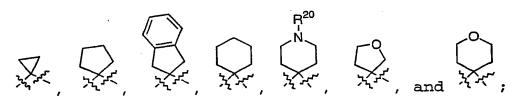
is substituted with 0-3 R4b; wherein said 5 to 6 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and tetrazolyl;

R<sup>4b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

Ring C is a 3-6 membered carbocycle selected from:

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wherein said 3-6 membered carbocycle is substituted with 0-1  $R^{21}$ ;

- 20 R<sup>21</sup> is selected from H, OH, Cl, F, CN, CF<sub>3</sub>, methyl, ethyl, methoxy, ethoxy, allyl, and -OCF<sub>3</sub>;
  - R<sup>11</sup>, at each occurrence, is independently selected from H, =0, NR<sup>18</sup>R<sup>19</sup>;
- 25  $C_1-C_4$  alkyl optionally substituted with 0-1  $R^{11a}$ ; phenyl substituted with 0-3  $R^{11b}$ ;
  - 5 to 7 membered heterocycle containing 1 to 4
    heteroatoms selected from nitrogen, oxygen, and
    sulphur, wherein said 5 to 7 membered heterocycle
    is substituted with 0-3 R<sup>11b</sup>; wherein said 5 to 7
    membered heterocycle is selected from pyridinyl,
    pyrimidinyl, triazinyl, furanyl, thienyl,
    thiazolyl, pyrrolyl, piperazinyl, piperidinyl,
    pyrazolyl, imidazolyl, oxazolyl, isoxazolyl,
- homopiperidinyl, and tetrazolyl;

10

 $R^{11a}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, methoxy, ethoxy, propoxy, phenoxy, F, Cl, =0,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;

 $R^{11b}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1$ - $C_2$  haloalkyl, and  $C_1$ - $C_2$  haloalkoxy;

W is a bond or  $-CH_2-$ ;

X is a bond, phenyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl or 5 to 6 membered heterocycle;

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

20 Z is H;  $C_1-C_8$  alkyl substituted with 0-3  $R^{12a}$ ;  $C_2-C_6$  alkenyl substituted with 0-3  $R^{12a}$ ;

 $C_2-C_6$  alkynyl substituted with 0-3  $R^{12a}$ ;

 $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;

C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;

30

 $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$ 

haloalkoxy;

phenyl substituted with 0-4 R<sup>12b</sup>;

C<sub>3</sub>-6 carbocycle substituted with 0-4 R<sup>12b</sup>; or



5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;

5

 $\mathbb{R}^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ , S(=0)<sub>2</sub>CH<sub>3</sub>, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$ haloalkoxy;

10

R13, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, methoxy, ethoxy, Cl, F, Br, CN,  $NR^{15}R^{16}$ , and  $CF_3$ ;

15

- R14 is H, phenyl, benzyl, methyl, ethyl, propyl, or butyl;
  - R15, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and

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R16, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, and phenethyl.

25

R18, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;

R19, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and 30.

 $R^{20}$  is H, methyl, or ethyl.

[15] In another preferred embodiment the present invention provides a compound of Formula (Id) and (Ie) 35 wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

Ring C is selected from:

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5  $R^3$  is  $-CH_3$ ,  $-CH_2CH_3$ ,  $-CH_2CH_2CH_3$ ,  $-CH_2CH_2CH_2CH_3$ ,  $-CH_2CH_2CH(CH_3)_2$ ,  $-CH_2(CH_3)_2$ ,  $-CH(CH_3)CH_2CH_3$ ,  $-CH_2CH(CH_3)_2$ ,  $-\mathrm{CH}_2\mathrm{C}\left(\mathrm{CH}_3\right)_3,\ -\mathrm{CF}_3,\ -\mathrm{CH}_2\mathrm{CF}_3,\ -\mathrm{CH}_2\mathrm{CH}_2\mathrm{CF}_3,\ -\mathrm{CH}_2\mathrm{CH}_2\mathrm{CF}_3,$  $-\mathrm{CH}\left(\mathrm{OH}\right)\mathrm{CH}_{2}\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},\ -\mathrm{CH}\left(\mathrm{OH}\right)\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},\ -\mathrm{CH}\left(\mathrm{NH}_{2}\right)\mathrm{CH}_{2}\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},$ 10  $-CH_2CH_2OCH_3$ ,  $-CH_2OCH_2CH_3$ ,  $-CF_2CH_2CH(CH_3)_2$ ,  $-\mathrm{CH}\left(\mathrm{NHCH_{3}}\right)\mathrm{CH_{2}CH}\left(\mathrm{CH_{3}}\right)_{2}, \quad -\mathrm{CH}\left(\mathrm{NHSO_{2}CH_{2}CH_{2}CH_{3}}\right)\mathrm{CH_{2}CH}\left(\mathrm{CH_{3}}\right)_{2},$ cyclohexyl-, cyclopentyl-, cyclopropyl- $CH_2$ -,  $cyclobutyl-CH_2-$ ,  $cyclopentyl-CH_2-$ ,  $cyclohexyl-CH_2-$ , cyclopropyl- $CH_2CH_2$ -, cyclobutyl- $CH_2CH_2$ -, 15 cyclopentyl- $CH_2CH_2$ -, cyclohexyl-CH(OH)-,  ${\tt cyclohexyl-CH_2CH_2-,\ 1-NH_2-cyclopentyl,\ phenyl-CH_2-,}$  $(2-F-phenyl)CH_2-$ ,  $(3-F-phenyl)CH_2-$ ,  $(4-F-phenyl)CH_2-$ ,  $(2-Cl-phenyl)CH_2-$ ,  $(3-Cl-phenyl)CH_2-$ ,  $(4-Cl-phenyl)CH_2-$ ,  $(2,3-diF-pheny1)CH_2-, (2,4-diF-pheny1)CH_2-,$ 20 (2,5-diF-phenyl)CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>-,(3,4-diF-phenyl)CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>-, $(2,3-diCl-phenyl)CH_2-, (2,4-diCl-phenyl)CH_2-,$  $(2,5-diCl-phenyl)CH_2-, (2,6-diCl-phenyl)CH_2-,$  $(3,4-diCl-phenyl)CH_2-, (3,5-diCl-phenyl)CH_2-,$ 25 (3-F-4-Cl-phenyl)CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>-, $(3-C1-4-F-phenyl)CH_2-$ ,  $phenyl-CH_2CH_2-$ , (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(4-F-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,30 (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,35

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(3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,4-piperidinyl-CH2CH2-, phenyl-CH2CH2CF2-, phenyl-CH<sub>2</sub>CH(OH)-, imidazolyl-CH<sub>2</sub>CH(OH)-, or phenyl-CH2OCH2-;

W is a bond or -CH2-;

X is a bond;

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Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-,  $-S(=0)_2$ -, -NH-, or 15  $-N(CH_3)-$ 

Z is methyl, ethyl, i-propyl, n-propyl, n-butyl, i-butyl, s-butyl, t-butyl, allyl, phenyl, 2-F-phenyl,

3-F-phenyl, 4-F-phenyl, 2-Cl-phenyl, 3-Cl-phenyl, 20

4-Cl-phenyl, 2,3-diF-phenyl,

2,4-dif-phenyl, 2,5-dif-phenyl, 2,6-dif-phenyl,

3,4-diF-phenyl, 3,5-diF-phenyl, 2,3-diCl-phenyl,

2,4-diCl-phenyl, 2,5-diCl-phenyl, 2,6-diCl-phenyl,

3,4-diCl-phenyl, 3,5-diCl-phenyl, 3-F-4-Cl-phenyl, 25

3-F-5-Cl-phenyl, 3-Cl-4-F-phenyl, 2-MeO-phenyl,

3-MeO-phenyl, 4-MeO-phenyl, 2-Me-phenyl, 3-Me-phenyl,

4-Me-phenyl, 2-MeS-phenyl, 3-MeS-phenyl, 4-MeS-phenyl,

2-CF<sub>3</sub>O-phenyl, 3-CF<sub>3</sub>O-phenyl, 4-CF<sub>3</sub>O-phenyl, furanyl,

thienyl, pyridyl, 2-Me-pyridyl, 3-Me-pyridyl, 30

4-Me-pyridyl, 1-imidazolyl, oxazolyl, isoxazolyl,

1-benzimidazolyl, cyclopropyl, cyclobutyl,

cyclopentyl, cyclohexyl, morpholino, N-piperinyl,

phenyl-CH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>-,

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(4-F-phenyl)CH_2-, (2-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2,
              (4-Cl-phenyl)CH<sub>2</sub>-, (2,3-dif-phenyl)CH<sub>2</sub>-,
              (2,4-diF-phenyl)CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>-,
              (2,6-diF-phenyl)CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>-,
              (3,5-diF-phenyl)CH_2-, (2,3-diCl-phenyl)CH_2-,
 5
              (2,4-diCl-phenyl)CH_2-, (2,5-diCl-phenyl)CH_2-,
              (2,6-diCl-phenyl)CH_2-, (3,4-diCl-phenyl)CH_2-,
              (3,5-diCl-phenyl)CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>-,
              (3-F-5-Cl-phenyl)CH_2-, (3-Cl-4-F-phenyl)CH_2-,
              (2-MeO-phenyl)CH_2-, (3-MeO-phenyl)CH_2-,
10
              (4-MeO-phenyl)CH_2-, (2-Me-phenyl)CH_2-,
              (3-Me-phenyl)CH_2-, (4-Me-phenyl)CH_2-,
              (2-MeS-phenyl)CH_2-, (3-MeS-phenyl)CH_2-,
              4-MeS-phenyl)CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>-,
              (3-CF_3O-phenyl)CH_2-, (4-CF_3O-phenyl)CH_2-,
15
               (furanyl)CH2-, (thienyl)CH2-, (pyridyl)CH2-,
               (2-Me-pyridy1)CH_2-, (3-Me-pyridy1)CH_2-,
               (4-Me-pyridyl)CH_2-, (1-imidazolyl)CH_2-,
               (oxazolyl)CH2-, (isoxazolyl)CH2-,
               (1-benzimidazolyl)CH_2-, (cyclopropyl)CH_2-,
20
               (cyclobutyl)CH_2-, (cyclopentyl)CH_2-,
               (cyclohexyl)CH2-, (morpholino)CH2-,
               (N-pipridinyl)CH_2-, phenyl-CH_2CH_2-,
               (phenyl)<sub>2</sub>CHCH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
               (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
 25
               (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
 30
                (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
  35
                (4-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
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(2-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(4-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(furanyl)CH<sub>2</sub>CH<sub>2</sub>-, (thienyl)CH<sub>2</sub>CH<sub>2</sub>-, (pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
(4-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (imidazolyl)CH<sub>2</sub>CH<sub>2</sub>-,
(oxazolyl)CH<sub>2</sub>CH<sub>2</sub>-, (isoxazolyl)CH<sub>2</sub>CH<sub>2</sub>-,
(benzimidazolyl)CH<sub>2</sub>CH<sub>2</sub>-, (cyclopropyl)CH<sub>2</sub>CH<sub>2</sub>-,
(cyclobutyl)CH<sub>2</sub>CH<sub>2</sub>-, (cyclopentyl)CH<sub>2</sub>CH<sub>2</sub>-,
(cyclobexyl)CH<sub>2</sub>CH<sub>2</sub>-, (morpholino)CH<sub>2</sub>CH<sub>2</sub>-, or
(N-pipridinyl)CH<sub>2</sub>CH<sub>2</sub>-;

R11, at each occurrence, is independently selected from
H, =0, methyl, ethyl, phenyl, benzyl, phenethyl,
4-F-phenyl, (4-F-phenyl)CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
3-F-phenyl, (3-F-phenyl)CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
2-F-phenyl, (2-F-phenyl)CH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
4-Cl-phenyl, (4-Cl-phenyl)CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
3-Cl-phenyl, (3-Cl-phenyl)CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
4-CH<sub>3</sub>-phenyl, (4-CH<sub>3</sub>-phenyl)CH<sub>2</sub>-, (4-CH<sub>3</sub>-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
3-CH<sub>3</sub>-phenyl, (3-CH<sub>3</sub>-phenyl)CH<sub>2</sub>-, (3-CH<sub>3</sub>-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
4-CF<sub>3</sub>-phenyl, (4-CF<sub>3</sub>-phenyl)CH<sub>2</sub>-, (4-CF<sub>3</sub>-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
cyclopentyl, pyrid-2-yl, pyrid-3-yl, or pyrid-4-yl; and

25  $R^{13}$ , at each occurrence, is independently selected from H, F, Cl, OH, -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -OCH<sub>3</sub>, or -CF<sub>3</sub>.

[16] In another preferred embodiment the present invention provides a compound of Formula (If):



or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

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 $R^3$  is  $-(CH_2)_n-R^4$ ,  $-(CH_2)_1-S-R^4$ ,  $-(CH_2)_1-O-R^4$ , or  $-(CH_2)_1-N(R^{7b})-R^4$ ;

10

n is 0, 1 or 2;

1 is 1 or 2;

- 15  $R^4$  is  $C_1-C_8$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_8$  alkenyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_8$  alkynyl substituted with 0-3  $R^{4a}$ ,  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,  $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or
- 5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R4b;
- 25 R<sup>4a</sup>, at each occurrence, is independently selected from H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,

  C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

  C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and

  5 to 10 membered heterocycle containing 1 to 4

  heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>4b</sup>;
- $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=O)CH_3$ ,  $S(=O)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,

C1-C4 haroalkoxy, and C1-C4 haloalky S-

R<sup>7b</sup> is H, methyl, or ethyl;

- 5 Ring C is a 3-8 membered carbocycle;
  wherein said 3-8 membered carbocyclic moiety is
  saturated or partially saturated;
  wherein said 3-8 membered carbocyclic moiety is
  substituted with 0-3 R<sup>21</sup>;
- optionally, the carbocycle contains a heteroatom selected from -O- and -N(R<sup>20</sup>)-;
- $R^{21}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)2CH<sub>3</sub>,  $NR^{15}R^{16}$ ,  $OR^{14a}$ ,  $C_1$ -C<sub>4</sub> alkyl,  $C_2$ -C<sub>4</sub> alkenyl,  $C_2$ -C<sub>4</sub> alkynyl,  $C_1$ -C<sub>4</sub> alkoxy,  $C_1$ -C<sub>4</sub> haloalkyl,  $C_1$ -C<sub>4</sub> haloalkoxy, and  $C_1$ -C<sub>4</sub> haloalkyl-S-;
- R11 is selected from  $H, =0, NR^{18}R^{19}, CF_3;$ 20  $C_1-C_4$  alkyl optionally substituted with 0-1  $R^{11a}$ ; phenyl substituted with 0-3 R11b; C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>11b</sup>; and 5 to 7 membered heterocycle containing 1 to 4heteroatoms selected from nitrogen, oxygen, and 25 sulphur, wherein said 5 to 7 membered heterocycle is substituted with 0-3  $R^{11b}$ ; wherein said 5 to 7 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, 30 pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, homopiperidinyl, and tetrazolyl;
- $R^{11a}$ , at each occurrence, is independently selected from H,  $C_1-C_4$  alkyl,  $OR^{14}$ , F, Cl, =0,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;

R11b, at each occurrence, is independently selected from H, OH, Cl, F, NR15R16, CF3, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2 haloalkoxy;

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W is a bond, -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-;

x is a bond;

phenyl substituted with 0-2 RXb;

10  $C_3-C_6$  cycloalkyl substituted with 0-2  $R^{Xb}$ ; or 5 to 6 membered heterocycle substituted with 0-2  $R^{Xb}$ ;

 $R^{\rm Xb}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ , CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>3</sub> alkoxy, C<sub>1</sub>-C<sub>2</sub> haloalkyl, and C<sub>1</sub>-C<sub>2</sub> haloalkoxy;

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-,  $-S(=0)_2$ -,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)_2$ -,  $-S(=0)_2NR^{19b}$ -,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)O-, or -OC(=0)-;

Z is H;

 $C_1-C_8$  alkyl substituted with 0-3  $R^{12a}$ ;

 $C_2-C_6$  alkenyl substituted with 0-3 R<sup>12a</sup>;

 $C_2$ - $C_6$  alkynyl substituted with 0-3  $R^{12a}$ ;

C6-C10 aryl substituted with 0-4 R12b;

 $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;

 $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=0)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,

C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-,
C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;
C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

- $R^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 15  $R^{14}$  is H, phenyl, benzyl,  $C_1-C_6$  alkyl,  $C_2-C_6$  alkoxyalkyl, or  $C_3-C_6$  cycloalkyl;
  - R14a is H, phenyl, benzyl, or C1-C4 alkyl;
- 20  $R^{15}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- R16, at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1-C_4$  alkyl)-C(=0)-, and  $(C_1-C_4$  alkyl)- $S(=0)_2$ -;
- R18, at each occurrence, is independently selected from H, C<sub>1</sub>-C<sub>6</sub> alkyl, phenyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=0)<sub>2</sub>-;
  - R19, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, phenyl, benzyl, phenethyl; and
- 35  $R^{20}$  is H or  $C_1-C_4$  alkyl.

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[17] In another preferred embodiment the present invention provides a compound of Formula (If) wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;

R<sup>4</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkenyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3 R<sup>4a</sup>,

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

phenyl substituted with 0-3 R<sup>4b</sup>, or

5 to 6 membered heterocycle containing 1 to 3

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 6 membered heterocycle
is substituted with 0-3 R<sup>4b</sup>;

R<sup>4a</sup>, at each occurrence, is independently selected from is H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>, phenyl substituted with 0-3 R<sup>4b</sup>, or

5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R<sup>4b</sup>;

R4b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,

30  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

Ring C is a 3-6 membered carbocycle;

wherein said 3-6 membered carbocyclic moiety is

saturated or partially unsaturated;

wherein said 3-6 membered carbocyclic moiety is

substituted with 0-2 R<sup>21</sup>;

optionally, the carbocycle contains a heteroatom selected from -0- and  $-N(R^{20})-$ ;

 $\mathbb{R}^{21}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $CF_3$ , acetyl,  $SCH_3$ , methyl, 5 ethyl, methoxy, ethoxy, allyl, -OCF3, and -SCF3;

R<sup>11</sup> is selected from  $H, = 0, NR^{18}R^{19}, CF_3;$  $C_1-C_4$  alkyl optionally substituted with 0-1  $R^{11a}$ ; 10 phenyl substituted with 0-3 R11b;  $C_3-C_6$  carbocycle substituted with 0-3  $R^{11b}$ ; and 5 to 7 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 7 membered heterocycle 15 is substituted with 0-3  $R^{11b}$ ; wherein said 5 to 7 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl,

R11a, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, phenoxy, F, Cl, =0,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl 25 substituted with 0-3 R11b;

homopiperidinyl, and tetrazolyl;

R11b, at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1$ - $C_2$  haloalkyl, and  $C_1$ - $C_2$ 30 haloalkoxy;

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

X is a bond; 35 phenyl substituted with 0-1 RXb;  $C_3-C_6$  cycloalkyl substituted with 0-1  $R^{\mathrm{Xb}}$ ; or

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5 to 6 membered heterocycle substituted with 0-1 RXb;

 $R^{\rm XD}$  is selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, methyl, ethyl, propyl, methoxy, ethoxy, propoxy, and -OCF<sub>3</sub>;

Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

10 Z is H;  $C_{1}-C_{8} \text{ alkyl substituted with } 0-3 \text{ R}^{12a};$   $C_{2}-C_{6} \text{ alkenyl substituted with } 0-3 \text{ R}^{12a};$   $C_{2}-C_{6} \text{ alkynyl substituted with } 0-3 \text{ R}^{12a};$   $C_{6}-C_{10} \text{ aryl substituted with } 0-4 \text{ R}^{12b};$ 

15 C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; or
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

 $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>,  $NR^{15}R^{16}$ , -C(=0) $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ , S(=0) $CH_3$ , S(=0) $_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,

C1-C4 haloalkoxy, C1-C4 haloalkyl-S-,
C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;
C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

R12b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

 $R^{14}$  is H, phenyl, benzyl,  $C_1-C_4$  alkyl, or  $C_2-C_4$  alkoxyalkyl;

- R<sup>15</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, benzyl, and phenethyl;
  - R<sup>16</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, phenethyl, methyl-C(=0)-, ethyl-C(=0)-, methyl-S(=0)<sub>2</sub>-, and ethyl-S(=0)<sub>2</sub>-;
  - R18, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;

R<sup>19</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl;

 $R^{20}$  is H or  $C_1$ - $C_4$  alkyl.

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[18] In another preferred embodiment the present invention provides a compound of Formula (If) wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

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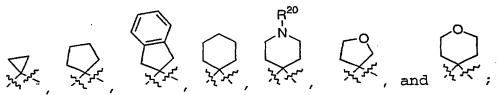
 $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;

- $R^4$  is  $C_1-C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_6$  alkenyl substituted with 0-3  $R^{4a}$ , or  $C_2-C_6$  alkynyl substituted with 0-3  $R^{4a}$ ;
- $R^{4a}$ , at each occurrence, is independently selected from is H, OH, F, Cl, Br, I,  $NR^{15}R^{16}$ ,  $CF_3$ ,  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{4b}$ ,
- phenyl substituted with 0-3 R<sup>4b</sup>, or
  to 6 membered heterocycle containing 1 to 3
  heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R<sup>4b</sup>; wherein said 5 to 6 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and tetrazolyl;

 $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

15 Ring C is a 3-6 membered carbocycle selected from:



wherein said 3-6 membered carbocycle is substituted with 0-1  $R^{21}$ ;

20  $R^{21}$  is selected from H, OH, Cl, F, CN, CF<sub>3</sub>, methyl, ethyl, methoxy, ethoxy, allyl, and -OCF<sub>3</sub>;

R<sup>11</sup> is selected from

H, =0, NR<sup>18</sup>R<sup>19</sup>;

C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted with 0-1 R<sup>11a</sup>;

phenyl substituted with 0-3 R<sup>11b</sup>;

5 to 7 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 7 membered heterocycle is substituted with 0-3 R<sup>11b</sup>; wherein said 5 to 7 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl,

pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, homopiperidinyl, and tetrazolyl;

- R11a, at each occurrence, is independently selected from H, methyl, ethyl, propyl, methoxy, ethoxy, propoxy, phenoxy, F, Cl, =0, NR15R16, CF3, or phenyl substituted with 0-3 R11b;
- R11b, at each occurrence, is independently selected from H,

  OH, Cl, F, NR15R16, CF3, methyl, ethyl, propyl, butyl,

  methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2

  haloalkoxy;

W is a bond or -CH2-;

- X is a bond, phenyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl or 5 to 6 membered
  heterocycle;
- Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;
- Z is H;

  C1-C8 alkyl substituted with 0-3 R<sup>12a</sup>;

  C2-C6 alkenyl substituted with 0-3 R<sup>12a</sup>;

  C2-C6 alkynyl substituted with 0-3 R<sup>12a</sup>;

  C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;

  C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or

  5 to 10 membered heterocycle containing 1 to 4

  heteroatoms selected from nitrogen, oxygen, and

  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
- $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

phenyl substituted with 0-4 R<sup>12b</sup>;

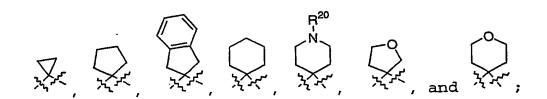
C<sub>3</sub>-6 carbocycle substituted with 0-4 R<sup>12b</sup>; or

5 to 6 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 6 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

- R12b, at each occurrence, is independently selected from H, OH, Cl, F, NR15R16, CF3, acetyl, SCH3, S(=0)CH3, S(=0)2CH3, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2 haloalkoxy;
- $\mathbb{R}^{14}$  is H, phenyl, benzyl, methyl, ethyl, propyl, or butyl;
  - $\mathbb{R}^{15}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and
- R16, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, and phenethyl.
- R18, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
  - $\mathbb{R}^{19}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and
- 30  $\mathbb{R}^{20}$  is H, methyl, or ethyl.
  - [19] In another preferred embodiment the present invention provides a compound of Formula (If) wherein:
- 35 L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

Ring C is selected from:



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R^3 is -CH_3, -CH_2CH_3, -CH_2CH_2CH_3, -CH_2CH_2CH_3,
           -CH_2CH_2CH(CH_3)_2, -CH_2(CH_3)_2, -CH(CH_3)CH_2CH_3, -CH_2CH(CH_3)_2,
 5
           -CH_2C(CH_3)_3, -CF_3, -CH_2CF_3, -CH_2CH_2CF_3, -CH_2CH_2CH_2CF_3,
           -CH(OH)CH_2CH(CH_3)_2, -CH(OH)CH(CH_3)_2, -CH(NH_2)CH_2CH(CH_3)_2,
           -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>3</sub>, -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub>, -CF<sub>2</sub>CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>,
           -CH(NHCH<sub>3</sub>)CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, -CH(NHSO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>)CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>,
           cyclohexyl-, cyclopentyl-, cyclopropyl-CH_2-,
10
           cyclobutyl-CH2-, cyclopentyl-CH2-, cyclohexyl-CH2-,
           cyclopropyl-CH2CH2-, cyclobutyl-CH2CH2-,
           cyclopentyl-CH2CH2-, cyclohexyl-CH(OH)-,
           cyclohexyl-CH2CH2-, 1-NH2-cyclopentyl, phenyl-CH2-,
           (2-F-phenyl)CH_2-, (3-F-phenyl)CH_2-, (4-F-phenyl)CH_2-,
15
            (2-Cl-phenyl)CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>-,
            (2,3-diF-phenyl)CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>-,
            (2,5-diF-phenyl)CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>-,
            (3,4-diF-phenyl)CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>-,
            (2,3-diCl-phenyl)CH<sub>2</sub>-, (2,4-diCl-phenyl)CH<sub>2</sub>-,
20
            (2,5-diCl-phenyl)CH<sub>2</sub>-, (2,6-diCl-phenyl)CH<sub>2</sub>-,
            (3,4-diCl-phenyl)CH_2-, (3,5-diCl-phenyl)CH_2-,
            (3-F-4-Cl-phenyl)CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>-,
            (3-C1-4-F-phenyl)CH_2-, phenyl-CH_2CH_2-,
            (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
25
            (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
30
            (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            4-piperidinyl-CH2CH2-, phenyl-CH2CH2CF2-,
35
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phenyl-CH<sub>2</sub>CH(OH)-, imidazolyl-CH<sub>2</sub>CH(OH)-, or phenyl-CH<sub>2</sub>OCH<sub>2</sub>-;

W is a bond or  $-CH_2-;$ 

5

X is a bond;

10

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-,  $-S(=0)_2$ -, -NH-, or  $-N(CH_3)$ -,

- 15 Z is methyl, ethyl, i-propyl, n-propyl, n-butyl, i-butyl,
  s-butyl, t-butyl, allyl, phenyl, 2-F-phenyl,
  3-F-phenyl, 4-F-phenyl, 2-Cl-phenyl, 3-Cl-phenyl,
  4-Cl-phenyl, 2,3-diF-phenyl,
  - 2,4-diF-phenyl, 2,5-diF-phenyl, 2,6-diF-phenyl,
- 3,4-diF-phenyl, 3,5-diF-phenyl, 2,3-diCl-phenyl,
  2,4-diCl-phenyl, 2,5-diCl-phenyl, 2,6-diCl-phenyl,
  - 3,4-diCl-phenyl, 3,5-diCl-phenyl, 3-F-4-Cl-phenyl,
  - 3-F-5-Cl-phenyl, 3-Cl-4-F-phenyl, 2-MeO-phenyl,
  - 3-MeO-phenyl, 4-MeO-phenyl, 2-Me-phenyl, 3-Me-phenyl,
- 4-Me-phenyl, 2-MeS-phenyl, 3-MeS-phenyl, 4-MeS-phenyl,
  - 2-CF<sub>3</sub>O-phenyl, 3-CF<sub>3</sub>O-phenyl, 4-CF<sub>3</sub>O-phenyl, furanyl,
  - thienyl, pyridyl, 2-Me-pyridyl, 3-Me-pyridyl,
  - 4-Me-pyridyl, 1-imidazolyl, oxazolyl, isoxazolyl,
  - 1-benzimidazolyl, cyclopropyl, cyclobutyl,
- cyclopentyl, cyclohexyl, morpholino, N-piperinyl, phenyl-CH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>-, (2-Cl-phenyl)CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>, (4-Cl-phenyl)CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>-,
  - (2,4-diF-phenyl)CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>-,

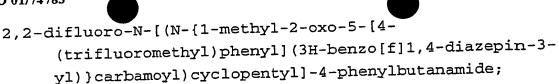
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(2,6-diF-phenyl)CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>-,
                (3,5-diF-phenyl)CH_2-, (2,3-diCl-phenyl)CH_2-,
                (2,4-diCl-phenyl)CH2-, (2,5-diCl-phenyl)CH2-,
                (2,6-diCl-phenyl)CH2-, (3,4-diCl-phenyl)CH2-,
                (3,5-diCl-phenyl)CH_2-, (3-F-4-Cl-phenyl)CH_2-,
 5
                (3-F-5-Cl-phenyl)CH_2-, (3-Cl-4-F-phenyl)CH_2-,
                (2-MeO-phenyl)CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>-,
                (4-MeO-phenyl)CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>-,
                (3-Me-phenyl)CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>-,
                (2-MeS-phenyl)CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>-,
10
               4-MeS-phenyl)CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>-,
                (3-CF_3O-phenyl)CH_2-, (4-CF_3O-phenyl)CH_2-,
                (furanyl)CH2-, (thienyl)CH2-, (pyridyl)CH2-,
                (2-Me-pyridyl)CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>-,
                (4-Me-pyridyl)CH<sub>2</sub>-, (1-imidazolyl)CH<sub>2</sub>-,
15
                (oxazoly1)CH2-, (isoxazoly1)CH2-,
                (1-benzimidazolyl)CH2-, (cyclopropyl)CH2-,
                (cyclobutyl) CH2-, (cyclopentyl) CH2-,
                (cyclohexyl) CH2-, (morpholino) CH2-,
                (N-pipridinyl)CH2-, phenyl-CH2CH2-,
20
                (phenyl)<sub>2</sub>CHCH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (4-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
25
                (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,6-dicl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-dicl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
30
                (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2-MeO-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeO-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
                (4-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
35
                (4-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-CF<sub>3</sub>0-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                 (3-CF_3O-phenyl)CH_2CH_2-, (4-CF_3O-phenyl)CH_2CH_2-,
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(furanyl)CH<sub>2</sub>CH<sub>2</sub>-, (thienyl)CH<sub>2</sub>CH<sub>2</sub>-, (pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
(4-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (imidazolyl)CH<sub>2</sub>CH<sub>2</sub>-,
(oxazolyl)CH<sub>2</sub>CH<sub>2</sub>-, (isoxazolyl)CH<sub>2</sub>CH<sub>2</sub>-,
(benzimidazolyl)CH<sub>2</sub>CH<sub>2</sub>-, (cyclopropyl)CH<sub>2</sub>CH<sub>2</sub>-,
(cyclobutyl)CH<sub>2</sub>CH<sub>2</sub>-, (cyclopentyl)CH<sub>2</sub>CH<sub>2</sub>-,
(cyclohexyl)CH<sub>2</sub>CH<sub>2</sub>-, (morpholino)CH<sub>2</sub>CH<sub>2</sub>-, or
(N-pipridinyl)CH<sub>2</sub>CH<sub>2</sub>-; and
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- 10 R<sup>11</sup>, at each occurrence, is independently selected from
   H, =O, methyl, ethyl, phenyl, benzyl, phenethyl,
   4-F-phenyl, (4-F-phenyl)CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
   3-F-phenyl, (3-F-phenyl)CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
   2-F-phenyl, (2-F-phenyl)CH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
   4-Cl-phenyl, (4-Cl-phenyl)CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
   3-Cl-phenyl, (3-Cl-phenyl)CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
   4-CH<sub>3</sub>-phenyl, (4-CH<sub>3</sub>-phenyl)CH<sub>2</sub>-, (4-CH<sub>3</sub>-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
   3-CH<sub>3</sub>-phenyl, (3-CH<sub>3</sub>-phenyl)CH<sub>2</sub>-, (3-CH<sub>3</sub>-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
   4-CF<sub>3</sub>-phenyl, (4-CF<sub>3</sub>-phenyl)CH<sub>2</sub>-, (4-CF<sub>3</sub>-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
   20 cyclopentyl, pyrid-2-yl, pyrid-3-yl, or pyrid-4-yl.
  - [20] In another preferred embodiment the present invention provides a compound of Formula (I) selected from:
  - 25 {[N-(3-methylbutyl)carbamoyl]cyclopentyl}-N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carboxamide;
  - {[N-(3-methylbutyl)carbamoyl]cyclopentyl}-N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carboxamide;
    - [(N-butylcarbamoyl)cyclopentyl]-N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carboxamide;
  - 35 2-(3,5-difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)3H-benzo[f]1,4-diazepin-3yl))carbamoyl]cyclohexyl}acetamide;

- 2-(3,5-difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopentyl}acetamide;
- 2-(3,5-difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-vl))carbamoyl]cyclopropyl}acetamide;
- 10 3-cyclopentyl-N-{{N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclohexyl}propanamide;
- 2-(3,5-difluorophenyl)-N-{4-[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl](4-piperidyl)}acetamide;
- - 4-methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f] azaperhydroepin-7-yl))carbamoyl]cyclopentyl}pentanamide;
- N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}{[(phenylmethoxy)carbonylamino]cyclopentyl}carboxamide;
- 30 (2S)-N-{[N-(1-{[3-(4-fluorophenoxy)phenyl]methyl}-2oxoazaperhydroepin-3-yl)carbamoyl]cyclopropyl}-2hydroxy-4-methylpentanamide;
- (2S)-N-{[N-(1-{[3-(4-fluorophenoxy)phenyl]methyl}-2-oxoazaperhydroepin-3-yl)carbamoyl]cyclopentyl}-2-hydroxy-3-methylbutanamide;

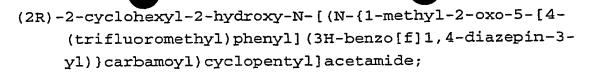


- 5 N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]-3-(4-piperidyl)propanamide;
- (2S)-2-hydroxy-4-methyl-N-[(N-{1-methyl-2-oxo-5-[410 (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]pentanamide;
  - 3-cyclopropyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]propanamide;
    - (2R) -2-hydroxy-3-imidazol-2-yl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]propanamide;
    - 2-ethoxy-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]acetamide;
- (2S)-2-hydroxy-3-methyl-N-[(N-{1-methyl-2-oxo-5-[4-30 (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]butanamide;

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- 5 (2S)-2-amino-4-methyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]pentanamide;
- [(cyclohexylcarbonylamino)cyclopentyl]-N-{1-methyl-2-oxo-5-10 [4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carboxamide;
  - {[N-(3-methylbutyl)carbamoyl]cyclopentyl}-N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carboxamide;
    - 4-methyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]pentanamide;
- (2S)-2-hydroxy-N-[(N-{1-methyl-2-oxo-5-[430 (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]-3-phenylpropanamide;
- N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]-2(phenylmethoxy)acetamide;



- (2S) -2-hydroxy-3-methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}butanamide;
- 5 (2S) -2-hydroxy-4-methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}pentanamide;
- 3-cyclopentyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]
  10 azaperhydroepin-7-yl))carbamoyl]cyclopentyl}propanamide;
  - (2S)-2-cyclohexyl-2-hydroxy-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}acetamide;
- N-{[N-(1-butyl-5-cyclopentyl-2-oxo(3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopentyl}-4-methylpentanamide;
  - N-{[N-(5-cyclopentyl-1-methyl-2-oxo(3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopentyl}-4-methylpentanamide;
  - (2S) -2-hydroxy-3-methyl-N-({N-[2-oxo-1-benzyl(3H,4H,5H-benzo[f]azaperhydroepin-3-yl)]carbamoyl}cyclopentyl)
    butanamide;
- 30 (2S)-4-methyl-N-{[N-(5-methyl-6-oxo(7Hdibenzo[d,f]azaperhydroepin-7yl))carbamoyl]cyclopentyl}-2[(propylsulfonyl)amino]pentanamide;
- 35 (2S)-2-amino-4-methyl-N-{[N-(5-methyl-6-oxo(7Hdibenzo[d,f]azaperhydroepin-7yl))carbamoyl]cyclopentyl}pentanamide;

2,2-difluoro-4-methyl-N-{[N-(5-methyl-6-oxo(7Hdibenzo[d, f]azaperhydroepin-7v1))carbamoy1]cyclopenty1}pentanamide; 5 4-methyl-N-{[N-(6-oxo(5H,7H-dibenzo[d,f]azaperhydroepin-7yl))carbamoyl]cyclopentyl}pentanamide;  $N-({N-[5-(3,3-dimethyl-2-oxobutyl)-6-oxo(7H$ dibenzo[d,f]azaperhydroepin-7-10 v1) ]carbamoy1}cyclopenty1) -4-methylpentanamide;  $4-methyl-N-[(N-\{6-oxo-5-[(3-phenoxyphenyl)methyl](7H$ dibenzo[d,f]azaperhydroepin-7yl) }carbamoyl)cyclopentyl]pentanamide; 15 N-{[N-(5-butyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7yl))carbamoyl]cyclopentyl}-4-methylpentanamide;  $4-methyl-N-({N-[6-oxo-5-benzyl(7H-$ 20 dibenzo[d, f]azaperhydroepin-7yl)]carbamoyl}cyclopentyl)pentanamide;  $N-({N-[5-(tert-butyl)-1-methyl-2-oxo(3H-benzo[f]1,4$ diazepin-3-yl)]carbamoyl}cyclopentyl)-4-25 methylpentanamide; N-({N-[5-(tert-butyl)-1-butyl-2-oxo(3H-benzo[f]1,4diazepin-3-yl)]carbamoyl}cyclopentyl)-4methylpentanamide; and 30  $N-({N-[5-butyl-2-oxo-1-(2-pyridylmethyl)(3H-benzo[f]1,4$ diazepin-3-yl)]carbamoyl}cyclopentyl)-4-

In another embodiment the present invention provides for a method for the treatment of neurological disorders

methylpentanamide.

associated with  $\beta$ -amyloid production comprising administering to a host in need of such treatment a therapeutically effective amount of a compound of Formula (I):

$$R^3-L$$
 $O$ 
 $R^6$ 
 $O$ 
 $W-X-Y-Z$ 
 $O$ 
 $O$ 

or a pharmaceutically acceptable salt or prodrug thereof.

It is understood that any and all embodiments of the present invention may be taken in conjunction with any other embodiment to describe additional even more preferred embodiments of the present invention.

In a second embodiment, the present invention provides a pharmaceutical composition comprising a compound of Formula (I) and a pharmaceutically acceptable carrier.

In a third embodiment, the present invention provides a method for the treatment of neurological disorders associated with  $\beta$ -amyloid production comprising administering to a host in need of such treatment a therapeutically effective amount of a compound of Formula (I).

In a preferred embodiment the neurological disorder associated with  $\beta\text{-amyloid}$  production is Alzheimer's Disease.

In a fourth embodiment, the present invention provides a method for inhibiting  $\gamma$ -secretase activity for the treatment of a physiological disorder associated with inhibiting  $\gamma$ -secretase activity comprising administering to a host in need of such inhibition a therapeutically

effective amount of a compound of Formula (I) that inhibits  $\gamma$ -secretase activity.

Thus, the present invention provides a method for inhibiting γ-secretase activity comprising administering to a host in need of such inhibition a therapeutically effective amount of a compound of Formula (I) that inhibits γ-secretase activity.

In a preferred embodiment the physiological disorder associated with inhibiting  $\gamma$ -secretase activity is Alzheimer's Disease.

In a fifth embodiment, the present invention provides a compound of Formula (I) for use in therapy.

In a preferred embodiment the present invention provides a compound of Formula (I) for use in therapy of Alzheimer's Disease.

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In a sixth embodiment, the present invention provides for the use of a compound of Formula (I) for the manufacture of a medicament for the treatment of Alzheimer's Disease.

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It is understood that any and all embodiments of the present invention may be taken in conjunction with any other embodiment to describe additional even more preferred embodiments of the present invention.

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## DEFINITIONS

As used herein, the term "A $\beta$ " denotes the protein designated A $\beta$ ,  $\beta$ -amyloid peptide, and sometimes  $\beta/A4$ , in the art. A $\beta$  is an approximately 4.2 kilodalton (kD) protein of about 39 to 43 amino acids found in amyloid plaques, the walls of meningeal and parenchymal arterioles, small arteries, capillaries, and sometimes, venules. The

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isolation and sequence data for the first 28 amino acids are described in U.S. Pat. No 4,666,829. The 43 amino acid sequence is:

1 Asp	Ala	Glu	Phe	Arg	His	Asp	Ser	Gly	Tyr
11 Glu	-Val	His	His	Gln	Lys	Leu	Val	Phe	Phe
21 Ala	Glu	Asp	Val	Gly	Ser	Asn	Lys	Gly	Ala
31 Ile	Ile	Gly	Leu	Met	Val	Gly	Gly	Val	Val
41 Ile	Ala	Thr							

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The term "APP", as used herein, refers to the protein known in the art as  $\beta$  amyloid precursor protein. protein is the precursor for Aeta and through the activity of "secretase" enzymes, as used herein, it is processed into  $A\beta$ . Differing secretase enzymes, known in the art, have 10 been designated  $\beta$  secretase, generating the N-terminus of  $\Delta\beta,~\alpha$  secretase cleaving around the 16/17 peptide bond in  $\Delta\beta,$  and " $\gamma$  secretases", as used herein, generating Cterminal  $A\beta$  fragments ending at position 38, 39, 40, 42, and 43 or generating C-terminal extended precursors which 15 are subsequently truncated to the above polypeptides.

The compounds herein described may have asymmetric centers. Compounds of the present invention containing an asymmetrically substituted atom may be isolated in optically active or racemic forms. It is well known in the art how to prepare optically active forms, such as by resolution of racemic forms or by synthesis from optically active starting materials. Many geometric isomers of olefins, C=N double bonds, and the like can also be present in the compounds described herein, and all such stable isomers are contemplated in the present invention. Cis and trans geometric isomers of the compounds of the present

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invention are described and may be isolated as a mixture of isomers or as separated isomeric forms. All chiral, diastereomeric, racemic forms and all geometric isomeric forms of a structure are intended, unless the specific stereochemistry or isomeric form is specifically indicated.

The term "substituted," as used herein, means that any one or more hydrogens on the designated atom is replaced with a selection from the indicated group, provided that the designated atom's normal valency is not exceeded, and that the substitution results in a stable compound. When a substituent is keto (i.e., =0), then 2 hydrogens on the atom are replaced.

When any variable (e.g., R<sup>5b</sup>) occurs more than one time in any constituent or formula for a compound, its definition at each occurrence is independent of its definition at every other occurrence. Thus, for example, if a group is shown to be substituted with 0-2 R<sup>5b</sup>, then said group may optionally be substituted with up to two R<sup>5b</sup> groups and R<sup>5b</sup> at each occurrence is selected independently from the definition of R<sup>5b</sup>. Also, combinations of substituents and/or variables are permissible only if such combinations result in stable compounds.

When a bond to a substituent is shown to cross a bond connecting two atoms in a ring, then such substituent may be bonded to any atom on the ring. When a substituent is listed without indicating the atom via which such substituent is bonded to the rest of the compound of a given formula, then such substituent may be bonded via any atom in such substituent. Combinations of substituents and/or variables are permissible only if such combinations result in stable compounds.

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As used herein, "alkyl" or "alkylene" is intended to include both branched and straight-chain saturated aliphatic hydrocarbon groups having the specified number of carbon atoms; for example, "C1-C6 alkyl" denotes alkyl having 1, 2, 3, 4, 5, or 6 carbon atoms. Examples of alkyl include, but are not limited to, methyl, ethyl, n-propyl,

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i-propyl, n-butyl, i-butyl, sec-butyl, t-butyl, pentyl, and hexyl. Preferred "alkyl" group, unless otherwise specified, is "C1-C4 alkyl". Additionally, unless otherwise specified, "propyl" denotes n-propyl or i-propyl; "butyl" denotes n-butyl, i-butyl, sec-butyl, or t-butyl.

As used herein, "alkenyl" or "alkenylene" is intended to include hydrocarbon chains of either a straight or branched configuration and one or more unsaturated carbon-carbon bonds which may occur in any stable point along the chain. Examples of "C2-C6 alkenyl" include, but are not limited to, ethenyl, 1-propenyl, 2-propenyl, 1-butenyl, 2-butenyl, 3-butenyl, 3-methyl-2-butenyl, 2-propenyl, 1-propenyl, 3-pentenyl, hexenyl, and the like.

As used herein, "alkynyl" or "alkynylene" is intended to include hydrocarbon chains of either a straight or branched configuration and one or more carbon-carbon triple bonds which may occur in any stable point along the chain, such as ethynyl, 1-propynyl, 2-propynyl, 1-butynyl, 2-butynyl, 3-butynyl, and the like.

20 "Alkoxy" or "alkyloxy" represents an alkyl group as defined above with the indicated number of carbon atoms attached through an oxygen bridge. Examples of alkoxy include, but are not limited to, methoxy, ethoxy, n-propoxy, i-propoxy, n-butoxy, s-butoxy, t-butoxy, n-pentoxy, and s-pentoxy. Preferred alkoxy groups are methoxy, ethoxy, n-propoxy, i-propoxy, n-butoxy, s-butoxy, t-butoxy. Similarly, "alkylthio" or "thioalkoxy" is represents an alkyl group as defined above with the indicated number of carbon atoms attached through a sulphur bridge.

"Halo" or "halogen" as used herein refers to fluoro, chloro, bromo, and iodo. Unless otherwise specified, preferred halo is fluoro and chloro. "Counterion" is used to represent a small, negatively charged species such as chloride, bromide, hydroxide, acetate, sulfate, and the like.

"Haloalkyl" is intended to include both branched and straight-chain saturated aliphatic hydrocarbon groups having the specified number of carbon atoms, substituted with 1 or more halogen (for example  $-C_{\mathbf{V}}F_{\mathbf{W}}$  where  $\mathbf{v}$  = 1 to 3 and w = 1 to (2v+1)). Examples of haloalkyl include, but are not limited to, trifluoromethyl, trichloromethyl, pentafluoroethyl, pentachloroethyl, 2,2,2-trifluoroethyl, 2,2-difluoroethyl, heptafluoropropyl, and heptachloropropyl. "Haloalkoxy" is intended to mean a haloalkyl group as defined above with the indicated number 10 of carbon atoms attached through an oxygen bridge; for example trifluoromethoxy, pentafluoroethoxy, 2,2,2trifluoroethoxy, and the like. "Halothioalkoxy" is intended to mean a haloalkyl group as defined above with the indicated number of carbon atoms attached through a 15 sulphur bridge.

"Cycloalkyl" is intended to include saturated ring groups, having the specified number of carbon atoms. For example, "C<sub>3</sub>-C<sub>6</sub> cycloalkyl" denotes such as cyclopropyl, cyclobutyl, cyclopentyl, or cyclohexyl.

As used herein, "carbocycle" is intended to mean any stable 3- to 7-membered monocyclic or bicyclic or 7- to 13-membered bicyclic or tricyclic, any of which may be saturated, partially unsaturated, or aromatic. Examples of such carbocycles include, but are not limited to, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclohexyl, cycloheptyl, adamantyl, cyclooctyl, [3.3.0]bicyclooctane, [4.3.0]bicyclononane, [4.4.0]bicyclodecane (decalin), [2.2.2]bicyclooctane, fluorenyl, phenyl, naphthyl, indanyl, adamantyl, or tetrahydronaphthyl (tetralin). Preferred "carbocycle" are cyclopropyl, cyclobutyl, cyclopentyl, and cyclohexyl.

As used herein, the term "heterocycle" or "heterocyclic ring" is intended to mean a stable 5- to 7-membered monocyclic or bicyclic or 7- to 14-membered bicyclic heterocyclic ring which is saturated partially unsaturated or unsaturated (aromatic), and which consists

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of carbon atoms and 1, 2, 3 or 4 heteroatoms independently selected from the group consisting of N, O and S and including any bicyclic group in which any of the above-defined heterocyclic rings is fused to a benzene The nitrogen and sulfur heteroatoms may optionally be oxidized. The heterocyclic ring may be attached to its 5 pendant group at any heteroatom or carbon atom which results in a stable structure. The heterocyclic rings described herein may be substituted on carbon or on a nitrogen atom if the resulting compound is stable. 10 specifically noted, a nitrogen in the heterocycle may optionally be quaternized. It is preferred that when the total number of S and O atoms in the heterocycle exceeds 1, then these heteroatoms are not adjacent to one another. is preferred that the total number of S and O atoms in the 15 heterocycle is not more than 1.

Examples of heterocycles include, but are not limited to, 1H-indazole, 2-pyrrolidonyl, 2H,6H-1,5,2-dithiazinyl, 2H-pyrrolyl, 3H-indolyl, 4-piperidonyl, 4aH-carbazole,

- 20 4H-quinolizinyl, 6H-1,2,5-thiadiazinyl, acridinyl, azocinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzthiazolyl, benztriazolyl, benztetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazalonyl, carbazolyl,
- 4aH-carbazolyl, b-carbolinyl, chromanyl, chromenyl, cinnolinyl, decahydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuro[2,3-b]tetrahydrofuran, furanyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolenyl, indolinyl, indolizinyl, indolyl,
- isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl, isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl,
- oxazolyl, oxazolidinylperimidinyl, phenanthridinyl, phenanthrolinyl, phenarsazinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phthalazinyl, piperazinyl,

piperidinyl, pteridinyl, piperidonyl, 4-piperidonyl, pteridinyl, purinyl, pyranyl, pyrazinyl, pyrazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pyridooxazole, pyridoimidazole, pyridothiazole, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, carbolinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadiazinyl, 1,2,3-thiadiazolyl, 1,2,4-thiadiazolyl, 1,2,5-thiadiazolyl, 1,3,4-thiadiazolyl, 10 thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl, xanthenyl. Preferred 5 to 10 membered 15 heterocycles include, but are not limited to, pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, tetrazolyl, benzofuranyl, benzothiofuranyl, indolyl, benzimidazolyl, 1H-indazolyl, oxazolidinyl, isoxazolidinyl, benzotriazolyl, benzisoxazolyl, oxindolyl, benzoxazolinyl, 20 quinolinyl, and isoquinolinyl. Preferred 5 to 6 membered heterocycles include, but are not limited to, pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl,

pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl,
coxazolyl, isoxazolyl, tetrazolyl; more preferred 5 to 6
membered heterocycles include, but are not limited to,
pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl,
thiazolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl,
and tetrazolyl. Also included are fused ring and spiro
compounds containing, for example, the above heterocycles.

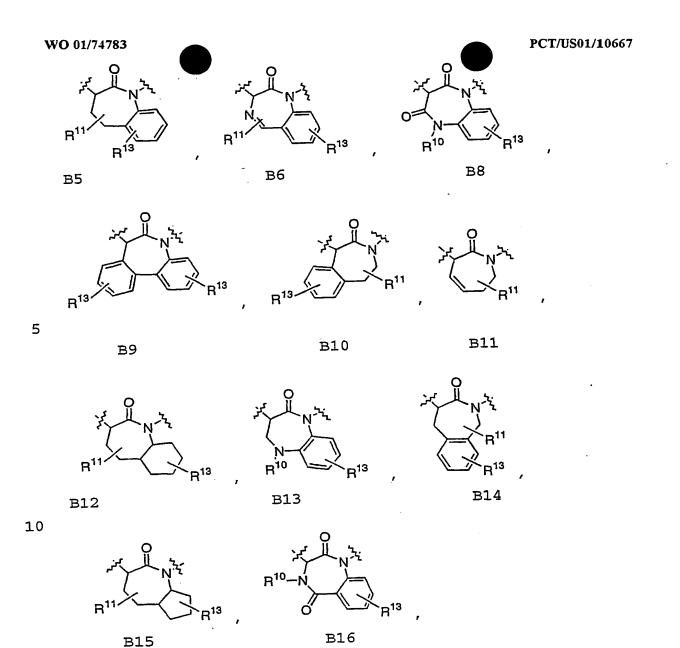
As used herein, the term "aryl", "C6-C10 aryl" or aromatic residue, is intended to mean an aromatic moiety containing the specified number of carbon atoms; for example phenyl, pyridinyl or naphthyl. Preferred "aryl" is phenyl. Unless otherwise specified, "aryl" may be unsubstituted or substituted with 0 to 3 groups selected from H, methyl, ethyl, propyl, butyl, methoxy, ethoxy,

propoxy, butoxy, amino, hydroxy, Cl, F, Br, I, CF<sub>3</sub>, SCH<sub>3</sub>, S(O)CH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, N(CH<sub>3</sub>)H, CN, NO<sub>2</sub>, OCF<sub>3</sub>, C(=O)CH<sub>3</sub>, CO<sub>2</sub>H, CO<sub>2</sub>CH<sub>3</sub>, or C<sub>1</sub>-C<sub>4</sub> haloalkyl.

The phrase "additional lactam carbons", as used

5 herein, is intended to denote the number of optional carbon
atoms in the lactam ring B of Formula (I). Formula (I"):

represents the lactam ring B of Formula (I). 10 lactam carbons are carbons in lactam ring B other than the carbons numbered 2 and 3 in the backbone of the formula. The additional lactam carbons may be optionally replaced by a heteroatom selected from oxygen, nitrogen and sulfur. Lactam ring B contains 1, 2, 3, 4, 5, 6 or 7 optional 15 carbons, wherein one optional carbon may optionally be replaced by a heteroatom, such that the total number of members of lactam ring B, including atoms numbered 1, 2 and 3 in the backbone, does not exceed 10. It is preferred that the total number of atoms of lactam ring B is 6, 7 or 20 8; it is more preferred that the total number of atoms of lactam ring B is seven. It is further understood that lactam ring B may optionally be unsaturated or partially unsaturated (i.e. two adjacent atoms in the ring form a double bond) wherein the backbone of lactam ring B may 25 contain one, two or three double bonds. Examples of lactam ring B include:



but are not intended to limit the invention. Preferred
examples of lactam ring B are B1, B2, B5, B6, B8, B9, B13,
and B16; more preferred examples of lactam ring B are B1,
B6, B8, B9, and B13. Preferred examples of substituent R10
or R11 on lactam B are methyl, ethyl, phenyl, 4fluorophenyl, 4-chlorophenyl, 4-trifluoromethylphenyl, (4fluorophenyl)methyl, (4-chlorophenyl)methyl, (4trifluoromethylphenyl)methyl, and 2-, 3-, and 4-pyridinyl.
Preferred examples of R13 on lactam B are F, Cl, OH,
methyl, ethyl, methoxy, and trifluoromethyl.

The compounds herein described may have asymmetric centers. One enantiomer of a compound of Formula (I) may display superior biological activity over the opposite enantiomer. For example carbon 3 of lactam ring B Formula (I") may exist in either an S or R configuration. Thus, an R or S configuration at carbon 3 in Formula (I") is considered part of the invention. An example of such configuration includes,

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and

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but is not intended to be limited to this example of ring B. When required, separation of the racemic material can be achieved by methods known in the art.

20 The phrase "pharmaceutically acceptable" is employed herein to refer to those compounds, materials, compositions, and/or dosage forms which are, within the scope of sound medical judgment, suitable for use in contact with the tissues of human beings and animals without excessive toxicity, irritation, allergic response, or other problem or complication, commensurate with a reasonable benefit/risk ratio.

As used herein, "pharmaceutically acceptable salts" refer to derivatives of the disclosed compounds wherein the

parent compound is modified by making acid or base salts thereof. Examples of pharmaceutically acceptable salts include, but are not limited to, mineral or organic acid salts of basic residues such as amines; alkali or organic salts of acidic residues such as carboxylic acids; and the The pharmaceutically acceptable salts include the conventional non-toxic salts or the quaternary ammonium salts of the parent compound formed, for example, from non-toxic inorganic or organic acids. For example, such conventional non-toxic salts include those derived from inorganic acids such as hydrochloric, hydrobromic, sulfuric, sulfamic, phosphoric, nitric and the like; and the salts prepared from organic acids such as acetic, propionic, succinic, glycolic, stearic, lactic, malic, tartaric, citric, ascorbic, pamoic, maleic, hydroxymaleic, phenylacetic, glutamic, benzoic, salicylic, sulfanilic, 2-acetoxybenzoic, fumaric, toluenesulfonic, methanesulfonic, ethane disulfonic, oxalic, isethionic, and the like.

The pharmaceutically acceptable salts of the present invention can be synthesized from the parent compound which contains a basic or acidic moiety by conventional chemical methods. Generally, such salts can be prepared by reacting the free acid or base forms of these compounds with a stoichiometric amount of the appropriate base or acid in 25 water or in an organic solvent, or in a mixture of the two; generally, nonaqueous media like ether, ethyl acetate, ethanol, isopropanol, or acetonitrile are preferred. of suitable salts are found in Remington's Pharmaceutical Sciences, 17th ed., Mack Publishing Company, Easton, PA, 30 1985, p. 1418, the disclosure of which is hereby incorporated by reference.

"Prodrugs" are intended to include any covalently bonded carriers which release the active parent drug according to formula (I) in vivo when such prodrug is administered to a mammalian subject. Prodrugs of a compound of formula (I) are prepared by modifying

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functional groups present in the compound in such a way that the modifications are cleaved, either in routine manipulation or in vivo, to the parent compound. Prodrugs include compounds of formula (I) wherein a hydroxy, amino, 5 or sulfhydryl group is bonded to any group that, when the prodrug or compound of formula (I) is administered to a mammalian subject, cleaves to form a free hydroxyl, free amino, or free sulfhydryl group, respectively. Examples of prodrugs include, but are not limited to, acetate, formate and benzoate derivatives of alcohol and amine functional groups in the compounds of formula (I), and the like.

"Stable compound" and "stable structure" are meant to indicate a compound that is sufficiently robust to survive isolation to a useful degree of purity from a reaction mixture, and formulation into an efficacious therapeutic agent.

## SYNTHESIS

The compounds of the present invention can be prepared in a number of ways well known to one skilled in the art of organic synthesis. The compounds of the present invention can be synthesized using the methods described below, together with synthetic methods known in the art of synthetic organic chemistry, or variations thereon as appreciated by those skilled in the art. Preferred methods include, but are not limited to, those described below. All references cited herein are hereby incorporated in their entirety herein by reference.

The novel compounds of this invention may be prepared using the reactions and techniques described in this section. The reactions are performed in solvents appropriate to the reagents and materials employed and which are suitable for the transformations being effected. Also, in the description of the synthetic methods described below, it is to be understood that all proposed reaction conditions, including choice of solvent, reaction atmosphere, reaction temperature, duration of the experiment and work-up procedures, are chosen to be the

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conditions standard for that reaction, which should be readily recognized by one skilled in the art. It is understood by one skilled in the art of organic synthesis that the functionality present on various portions of the molecule must be compatible with the reagents and reactions proposed. Such restrictions to the substituents which are compatible with the reaction conditions will be readily apparent to one skilled in the art and alternate methods must then be used.

In a preferred method of synthesis, the compounds of Formula (I) of the present invention can be prepared from carboxylic acid 1 and amine 2 using amide bond syntheses known in the art, including methods commonly used in peptide syntheses, such as HATU, TBTU, BOP, EDC, CDI, and DCC-mediated couplings, as illustrated in Scheme 1. Depending on the structure of the final product, it is appreciated by those skilled in the art that protecting groups or precursor functionality convertible to the desired groups may be desirable. Protecting groups and their use in synthesis are described in Green and Wuts, Protective Groups in Organic Synthesis, (Wiley 1991).

Additionally, the syntheses of a representative malonamide and a representative acetamide of Formula (I) are illustrated in Scheme 2 and Scheme 3, respectively. As will be readily apparent to those of ordinary skill in the art, the synthetic procedure illustrated in Scheme 2 and 3, and the reaction conditions described below can be modified by selecting the appropriate starting materials and reagents to allow the preparation of other compounds of the present invention.

#### Scheme 2

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Methods for the synthesis of lactams useful as intermediates in the synthesis of compounds of the present invention, including amino bisbenzodiazepine 5 and amino benzodiazepine 8, are known in the art and are disclosed in a number of references including PCT publication number WO 98/28268, WO 99/66934, and WOOO/07995, which are hereby incorporated by reference. Additional references include Bock, et. al., J. Org. Chem., 1987, 52, 3232-3239; Sherrill et. al., J. Org. Chem., 1995, 60, 730-734; Walsh, D. A., Synthesis, September 1980, p. 677; and Brown, at. al., Tetrahedron Letters, 1971, 8, 667-670.

Cyclic carboxylic acid intermediates, such as 4, are useful for the synthesis of the current invention, and may be synthesized by a number of ways well known in the art. One of the preferred syntheses of the compounds of this invention is shown in Scheme 4. Typically a convergent route is employed, which joins the acid 11 and the amine together to afford the key intermediate 12 using standard bond-forming procedures (Synthesis 1989, 37-38). The desired carboxylic acid 4 may be prepared from the known malonate ester 10 (e.g. Chung, S. K. Korean J. Med. Chem. 1995, 5, 94-111) via a three-step protocol as shown in Scheme 4.

### Scheme 4

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One of the preferred syntheses of cyclic amino acids, such as 7 which is useful in the preparation of compounds of Formula (I), is outlined in Scheme 5. As illustrated for the synthesis of carboxylic acid 7, the desired intermediate ester 18 is prepared by the initial coupling reaction of acid 14 and amine 13 under standard conditions using EDC and HOBt. Both the acids and the amines employed as starting materials in this invention are either commercially available or can be prepared from commercially available materials using conventional procedures and reagents. As apparent to those of ordinary skill in the art, the synthetic procedure illustrated in Scheme 5 and the reaction conditions described will allow the preparation of many other analogs of 7 by selecting the appropriate starting materials and reagents.

Scheme 5

$$H_2N$$
OMe + F
OH
EDC/HOBt

 $I_3$ 
 $I_4$ 
 $I_5$ 
 $I_6$ 
 $I_8$ 
 $I$ 

Methods for the synthesis of lactams useful as intermediates in the synthesis of compounds of the present

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invention are known in the art and are disclosed in a number of references including PCT publication number WO 98/28268, WO 99/66934, and WO00/07995, which are hereby incorporated by reference. Additional references include Bock, et. al., J. Org. Chem., 1987, 52, 3232-3239; Sherrill et. al., J. Org. Chem., 1995, 60, 730-734; Walsh, D. A., Synthesis, September 1980, p. 677; and Brown, at. al., Tetrahedron Letters, 1971, 8, 667-670.

One of the preferred syntheses of the lactam intermediates, such as 23, is outlined in Scheme 6. 10

Scheme 6

NHBoc

$$1. t$$
-BuLi,

 $Et_2O$ 
 $20$ 

NH2 O

 $1. t$ -BuLi,

 $Et_2O$ 
 $2. EtOH$ -HCl

 $21$ 
 $3. AcOH, NH_4OH$ 
 $3. AcOH, NH_4OAc$ 
 $23$ 

Preparation of 21 15 a)

To a suspension of 19 (30.0 g, 155 mmol) in dry Et<sub>2</sub>O (300 mL) under  $m N_2$  at -70 °C was added  $t ext{-BuLi}$  (205 mL, 1.7 M in pentane) and stirred for 4 h between -20 °C and -10 °C. The reaction was cooled to -70 °C and transferred via canula to a round bottom containing 20 (23.0 mL, 186 mmol) 20 in dry Et<sub>2</sub>O (150 mL) under  $N_2$  at -70 °C. The reaction was stirred while warming to rt for 14 h and quenched with 20% The resulting layers were separated and the citric acid. organic layer was washed with sat. NaHCO3, brine, dried over Na<sub>2</sub>SO<sub>4</sub>, filtered and concentrated to give a yellow 25 The oil was dissolved in EtOH-HCl (200 mL) and stirred overnight. The solvent was removed in vacuo at 70  $^{\circ}\text{C}$  and the resulting oil triturated with  $\text{Et}_2\text{O}$ . resultant solid was filtered and washed with  ${ t Et_20}$  to afford **21** HCl (23.9 g, 64%) as a orange solid:  ${}^{1}\text{H}$  NMR (500 MHz, 30  $CD_3OD)$   $\delta$  8.10 (d, 1 H), 7.66 (t, 1 H), 7.56 (t, 1 H), 7.51 (d, 1 H), 1.41 (s, 9 H); ESI MS  $m/z = 178 [C_{11}H_{15}NO+H]^+$ .

The orange solid was dissolved in 1N NaOH and EtOAC and the layers were separated. The organic layer was washed with brine, dried over  $Na_2SO_4$ , filtered and concentrated to afford 21 (21 g, 99%) as a yellow oil:  $^1H$  NMR (500 MHz, CD<sub>3</sub>OD)  $\delta$  7.70 (d, 1 H), 7.16 (t, 1 H), 6.78 (d, 1 H), 6.59 (t, 1 H), 1.38 (s, 9 H).

## b) Preparation of Example 23

To a solution of 22 (5.5 g, 17.0 mmol) in dry THF (50 mL) at 0 °C was added oxalyl chloride (1.47 mL, 17.0 mmol) 10 and DMF (0.2 mL) and stirred for 1.25 h. A solution of 21 (3.3 g, 15.4 mmol) and N-methylmorpholine (4.7 mL, 42.4 mmol) in dry THF (20 mL) was added to the reaction dropwise and the reaction was stirred at rt for 1.5 h. The reaction was filtered and MeOH (100 mL) and NH<sub>4</sub>OH (50 mL) was added 15 to the filtrate and the reaction was sealed. After 45 min, the reaction was concentrated to half its volume and added dropwise to a cooled solution (15 °C) of ammonium acetate (5.75 g) in acetic acid (120 ml). The reaction was stirred over night at rt, dissolved in  $\mathrm{Et_{2}O}$  (100 mL), made basic 20 with 6 N NaOH, and cooled in ice while stirring for 1 h. The resulting solid was filtered, washed with  ${\rm H_2O}$  and  ${\rm Et_2O}$ , and dried in a vacuum oven at 30 °C to afford 23 (3.5 g, 63%) as a white solid:  $^{1}\text{H}$  NMR (500 MHz, CD<sub>3</sub>OD)  $\delta$  7.78-7.16 (m, 10 H), 5.12 (s, 2 H), 1.27 (s, 9 H).25

Abbreviations used in the description of the chemistry and in the examples that follow are:

acetyl or acetate Ac aqueous 30 ag benzyl Bn t-butyloxycarbonyl Boc benzyloxycarbonyl Cbz N,N'-diisopropylethylamine DIEA 4-dimethylaminopyridine DMAP 35 ethylene glycol dimethyl ether DME N, N'-dimethylformamide DMF

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dimethylsulfoxide or methyl sulfoxide DMSO

1-(3-dimethylaminopropyl)-3-ethylcarbodiimide EDC • HCl

1-hydroxybenzotriazole HOBT

high performance liquid chromatography HPLC

lithium hexamethyldisilazide 5 LiHMDS

acetonitrile MeCN

mass spectrometry MS

saturated satd

room temperature rt or RT

trifluoroacetic acid 10 TFA

tetrahydrofuran THF

thin layer chromatography TLC

### EXAMPLES

The examples provided are intended to assist in a 15 further understanding of the invention. Particular materials employed, species and conditions are intended to be further illustrate of the invention and not limit the reasonable scope thereof.

Compounds of the present invention are generally 20 purified by HPLC using conditions known to one skilled in the art. However, unless otherwise indicated, the following conditions are generally applicable. HPLC Condition A: reverse-phase HPLC can be carried out using a Vydac C-18 column with gradient elution from 10% to 100 % 25 buffer B in buffer A (buffer A: water containing 0.1% trifluoroacetic acid, buffer B: 10% water, 90% acetonitrile containing 0.1% trifluoroacetic acid). Alternatively: HPLC Condition B: reverse-phase HPLC can be carried out using a Vydac C-18 column with gradient elution 30

from 10% to 90 % acetonitrile in water.

### Example 1

{[N-(3-methylbutyl)carbamoyl]cyclopentyl}-N-(5-methyl-6oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carboxamide. 35

(a) Methyl 1-[N-(3-methylbutyl)carbamoyl]cyclopentane-carboxylate

To 1-(methoxycarbonyl)cyclopentanecarboxylic acid (630 mg, 3.7 mmol) in CH<sub>2</sub>Cl<sub>2</sub>/DMF (5:1, 37 mL) at 0°C was added HOBT (730 mg, 4.8 mmol) and EDC (920 mg, 4.8 mmol). The mixture was stirred for 10 min then 3-methylbutylamine (640 mg, 7.4 mmol) was added and stirring was continued for 1 h.

The solution was poured into water and the layers separated. The aqueous layer was extracted with methylene chloride and the combined extracts were washed with water, 1N HCl, sat'd NaHCO<sub>3</sub>, dried over magnesium sulfate, and concentrated to a glassy solid (800 mg, 90%). MS [M + H]<sup>+</sup>

(b) Methyl 1-[N-(3-methylbutyl)carbamoyl]cyclopentane-carboxylic acid

To a solution of methyl 1-[N-(3-methylbutyl)carbamoyl]

20 cyclopentanecarboxylate (820 mg, 3.4 mmol) in 25 mL of THF

cooled to 0°C was added dropwise a solution of lithium

hydroxide monohydrate (260 mg, 6.12 mmol) in 5.0 mL of

water. The reaction mixture was stirred at rt for 16 h.

THF was removed under reduced pressure to give a yellow oil

25 which was diluted with 10 mL of 1N HCl. The aqueous phase

was extracted with CH<sub>2</sub>Cl<sub>2</sub> (8 x 15 mL), and the extracts

were combined, dried over Na<sub>2</sub>SO<sub>4</sub>, and concentrated to

afford 700mg (90%) of methyl 1-[N-(3
methylbutyl)carbamoyl]-

30 cyclopentanecarboxylic acid as a white solid. MS [M + H]<sup>+</sup> 228.

(c) {[N-(3-methylbutyl)carbamoyl]cyclopentyl}-N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carboxamide

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To 1-[N-(3-methylbutyl)carbamoyl]cyclopentane carboxylic acid (38 mg, 0.16 mmol) in  $CH_2Cl_2/DMF$  (5:1, 15 mL) at 0°C was added HOBT (28 mg, 0.18 mmol) and EDC (34 mg, 0.18 mmol). The mixture was stirred for 10 min then 7amino-5-methyl-7H-dibenzoazaperhydroepin-6-one (40 mg, 0.16 mmol) (obtained as the first eluting peak of a racemic mixture on a CHIRALCEL OD column with 20% iPrOH/Hexane with diethylamine) was added and stirring was continued for 1 h. The solution was poured into water and the layers separated. The aqueous layer was extracted with methylene chloride and the combined extracts were washed with water, 1N HCl, sat'd NaHCO3, dried over magnesium sulfate, and concentrated to a glassy solid (67 mg, 94%). <sup>1</sup>H NMR (300 MHz,  $CD_3OD)$   $\delta$  7.20-7.80 (m, 9H), 6.25 (m, 1H), 5.25 (d, 1H), 3.38 (s, 3H), 3.27 (m, 1H), 2.58-2.05 (m, 5H), 1.80-1.25 (m, 8H), 0.95, (m, 6H). MS  $[M + H]^+$  448.

## Example 2

{[N-(3-Methylbutyl)carbamoyl]cyclopentyl}-N-(1-methyl-2-20 oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carboxamide

The title compound was prepared in a manner similar to that described for Example 1. The product was obtained as a solid. MS  $[M + H]^+$  475.

## Example 3

[(N-Butylcarbamoyl)cyclopentyl]-N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carboxamide

The title compound was prepared in a manner similar to that described for Example 1. The product was obtained as a solid. MS  $[M + H]^+$  461.

#### Example 4

2-(3,5-Difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclohexyl}-

10 acetamide

- (a) {[(tert-Butoxy)carbonylamino]cyclohexyl}-N-(1-methyl-2oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carboxamide Diisopropylethylamine (2.5 mL, 15.0 mmol) and HATU
- 15 (2.85 g, 7.5 mmol) were added to a solution of 1-[(tert-butoxy)carbonylamino]cyclohexanecarboxylic acid (1.75 g, 7.2 mmol) in CH<sub>2</sub>Cl<sub>2</sub> (10 mL) at 0°C and stirred for 10 min.
  - (S)-3-amino-1-methyl-5-phenyl-3H-benzoazepin-2-one (3.0 g,
  - 6.0 mmol) was then added. The solution was allowed to warm
- to room temperature and stirred overnight. The reaction was quenched with water. The organic layer was separated and washed with a saturated solution of NaHCO3, 20% citric acid, brine, dried over Na<sub>2</sub>SO<sub>4</sub>, filtered and concentrated to afford a white solid (2.98 g, 99%). This compound
- 25 underwent no further purification:  $^{1}H$  NMR (500 MHz, CD<sub>3</sub>OD)  $\delta$  7.33-7.13 (m, 9 H), 5.35 (s, 1 H), 3.48 (s, 3 H), 2.21-1.29 (m, 10 H), 1.50, (s, 9 H).
- (b) (Aminocyclohexyl)-N-(1-methyl-2-oxo-5-phenyl((S)-3H-30 benzo[f]1,4-diazepin-3-yl))carboxamide

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A saturated solution of HCl in EtOAc (50 mL) was added to a solution of {[(tert-butoxy)carbonylamino]cyclohexyl}-(S)-3-N-(1-methyl-2-oxo-5-phenyl(3H-benzoazepin-3-yl))carboxamide (2.9 g, 5.9 mmol) in EtOAc (75 mL) and stirred at room temperature overnight. The reaction was quenched with 1N NaOH (100 mL). The organic layer was separated, and the aqueous layer was extracted with EtOAc. The organic layers were combined, washed with brine, dried over Na<sub>2</sub>SO<sub>4</sub>, filtered and concentrated to give a white solid (1.76 g, 77 %). mp 106-110 °C; <sup>1</sup>H NMR (500 MHz, CD<sub>3</sub>OD) δ 7.33-7.13 (m, 9 H), 5.32 (s, 1 H), 3.48 (s, 3 H), 1.98-1.25 (m, 10 H); CI MS m/z = 391 [C<sub>23</sub>H<sub>26</sub>N<sub>4</sub>O<sub>2</sub>+H]<sup>+</sup>; HPLC 100%, t<sub>r</sub> = 9.17 min. (HPLC Conditions A).

15 (c) 2-(3,5-Difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclohexyl}acetamide

Diisopropylethylamine (0.87 ml, 5.15 mmol) and HATU (979 mg, 2.58 mmol) were added to a solution of 2-(3,5difluorophenyl)acetic acid (426 mg, 2.47 mmol) in  $\mathrm{CH_2Cl_2}$ 20 (40 mL) at 0°C and stirred for 5 min. (Aminocyclohexyl)-(S)-3-N-(1-methyl-2-oxo-5-phenyl(3H-benzoazepin-3yl))carboxamide (800 mg, 2.06 mmol) was then added, and the solution was allowed to warm to room temperature and stirred overnight. The reaction was quenched with water. 25 The organic layer was separated and washed with a saturated solution of NaHCO3, 20% citric acid, brine, dried over  $Na_2SO_4$ , filtered and concentrated to give a white solid. Further purification by flash column chromatography afforded the title compound (659 mg, 60%) as a white solid: 30 mp 126-129°C;  $^{1}$ H NMR (500 MHz, CD<sub>3</sub>OD)  $\delta$  7.72-7.32 (m, 9 H), 6.97 (d, 2 H), 6.80 (t, 1 H), 5.31 (s, 1 H), 3.70 (s, 2 H), 3.48 (s, 3 H), 2.24-1.30 (m 10 H); API MS m/z = 545 $[C_{31}H_{30}F_{2}N_{4}O_{3}+H]^{+}$ ; HPLC 99.5%,  $t_{r}=22.26$  min. (HPLC Conditions A). 35

2-(3,5-Difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopentyl}acetamide

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The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as a solid. mp 112-117°C; <sup>1</sup>H NMR (500 MHz, CD<sub>3</sub>OD)  $\delta$  7.72-7.31(m, 9 H), 6.96 (d, 2 H), 6.81 (t, 1 H) 5.33 (s, 1 H), 3.63 (s, 2 H), 3.47 (s, 3 H), 2.41-1.72 (m, 8 H); API MS  $m/z = 531 \ [C_{30}H_{28}F_2N_4O_3+H]^+$ ; HPLC 99.4%,  $t_r = 21.23 \ \text{min}$ . (HPLC Conditions A).

### Example 6

2-(3,5-Difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopropyl}acetamide

The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as a solid. mp 212-214°C; <sup>1</sup>H NMR (500 MHz, CD<sub>3</sub>OD)  $\delta$  7.71-7.30 (m, 9 H), 6.98 (d, 2 H), 6.81 (t, 1 H), 5.28 (s, 1 H), 3.65 (s, 2 H), 3.48 (s, 3 H), 1.48 (m, 2 H), 1.08 (m, 2 H); API MS  $m/z = 503 \ [C_{28}H_{24}F_{2}N_{4}O_{3} + H]^{+}$ ; HPLC 97.7%,  $t_{r} = 19.48$  25 min. (HPLC Conditions A).

### Example 7

3-Cyclopentyl-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclohexyl)propanamide

The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as a solid. mp 88-103 °C;  $^1$ H NMR (500 MHz, CD<sub>3</sub>OD)  $\delta$  7.71-7.30 (m, 9 H), 5.28 (d, 1 H), 3.51 (d, 3 H), 2.39-0.82 (m, 23 H); CI MS m/z = 516 [C<sub>31</sub>H<sub>38</sub>N<sub>4</sub>O<sub>3</sub> + H]<sup>+</sup>; HPLC 96.5%,  $t_r = 14.79$  min. (HPLC Conditions A).

### Example 8

2-(3,5-Difluorophenyl)-N-{4-[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl](4-piperidyl)}acetamide

The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil. <sup>1</sup>H NMR (300 MHz, CD<sub>3</sub>OD) & 7.15-7.60 (m, 10H), 6.05-6.80 (m, 3H), 5.40 (d, 1H), 3.60 (s, 2H), 3.40 (s, 3H), 2.90 (m, 2H), 2.60 (m, 2H), 2.05, (m, 4H). MS [M + H]<sup>+</sup>546.

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## Example 9

Phenyl 4-[2-(3,5-difluorophenyl)acetylamino]-4-[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]piperidine carboxylate

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The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil.  $^{1}$ H NMR (300 MHz, CD<sub>3</sub>OD)  $\delta$  7.20-7.40 (m, 15H), 6.45-6.80 (m, 3H), 5.40 (d, 1H), 5.15 (s, 2H), 4.85 (s, 3H), 3.85 (m, 1H), 3.60 (s, 2H), 3.40 (s, 3H), 2.20, (m, 4H). MS [M + H]  $^{+}$  680.

### Example 10

4-Methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]]
10 azaperhydroepin-7-yl))carbamoyl]cyclopentyl}pentanamide

The title compound was prepared in a manner similar to that described for Example 4. This compound was made from the amino bisbenzazepine obtained as the first eluting peak of a racemic mixture on a CHIRALCEL OD column with 20% iPrOH/Hexane with diethylamine. The product was obtained as an oil. <sup>1</sup>H NMR (300 MHz, CD<sub>3</sub>OD) δ 7.20-7.60 (m, 8H), 20 (5.59 (s, 1H), 5.20 (d, 1H), 3.40 (s, 3H), 2.40-1.60 (m, 13H), 0.9, (d, 6H). MS [M + H]<sup>+</sup> 448.

## Example 11

N-{1-Methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3Hbenzo[f]1,4-diazepin-3-yl)}{[(phenylmethoxy)carbonylamino]cyclopentyl}carboxamide

The title compound was prepared in a manner similar to that described for Example 4. This compound was made from

the corresponding amino benzodiazepine that, as the CBz protected form, was the first eluting peak of the racemic mixture on a CHIRALCEL AD column using acetonitrile. The product was obtained as an oil.  $^{1}\text{H}$  NMR (300 MHz, CD<sub>3</sub>OD)  $\delta$  7.20-7.40 (m, 13H), 5.2 (s, 2H), 5.60 (m, 1H), 5.40 (d, 1H), 5.15 (s, 2H), 3.45 (s, 3H), 2.40 (m, 2H), 2.05-1.80 (m, 6H). MS [M + H] $^{+}$  579.

### Example 12

The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil.  $^{1}$ H NMR (300 MHz, CD<sub>3</sub>OD)  $\delta$  7.00-6.70 (m, 8H), 4.45 (m, 5H), 4.15 (m, 1H), 3.10-3.40 (m, 2H), 2.00-1.00 (m, 12H), 0.90, (m, 6H). MS [M + H]<sup>+</sup> 526.

#### Example 13

(2S)-N-{[N-(1-{[3-(4-Fluorophenoxy)phenyl]methyl}-2-oxoazaperhydroepin-3-yl)carbamoyl]cyclopentyl}-2-hydroxy-3-methylbutanamide

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The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil.  $^{1}\text{H}$  NMR (300 MHz, CD<sub>3</sub>OD)  $\delta$  7.20-6.80 (m, 8H), 4.60 (m, 3H), 4.00 (d, 1H), 3.5 (m, 1H), 3.20 (m, 1H), 2.40-1.05 (m, 17H), 1.00 (d, 3H), 0.90 (d, 3H). MS [M + H]  $^{+}$  540.

## Example 14 ·

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2,2-Difluoro-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]-4-phenylbutanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil.  $^{1}\text{H}$  NMR (300 MHz, CD<sub>3</sub>OD)  $\delta$  7.90-7.00 (m, 13H), 5.45 (d, 1H), 3.45 (s, 3H), 2.80 (m, 2H), 2.60-2.20 (m, 6H), 1.80-1.90 (m, 8H). MS [M + H] $^{+}$  627.

#### Example 15

N-[(N-{1-Methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]-3-(4-piperidyl)propanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil.  $^{1}$ H NMR (300 MHz, CD<sub>3</sub>OD)  $\delta$  8.00-7.20 (m, 9H), 6.10 (s, 1H), 5.40 (d, 1H), 5.15 (s, 2H), 3.60 (m, 1H), 3.40 (s, 3H), 3.15 (m, 1H), 2.60-1.20 (m, 14H). MS [M + H]  $^{+}$  584.

#### Example 16

25 (2S)-2-Hydroxy-4-methyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]pentanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil. MS  $[M + H]^+$  559.

### Example 17

3-Cyclopropyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]propanamide

## Example 18

20 (Aminocyclopentyl) -N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carboxamide

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The title compound was prepared in a manner similar to that described for Example 4. This compound was made from the BZD amine that, as a CBz protected form, was the first peak of the racemic mixture on the CHIRALCEL AD column with acetonitrile. The product was obtained as an oil.  $^{1}\text{H}$  NMR (300 MHz, CD\_3OD)  $\delta$  7.20-7.80 (m, 8H), 5.45 (m, 1H), 3.45 (s, 3H), 2.20 (m, 3H), 2.00-1.60 (m, 5H). MS [M + H]  $^{+}$  445.

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### Example 19

{[(Aminocyclopentyl)carbonylamino]cyclopentyl}-N-((S)1-methyl-2-oxo-5-phenyl(3H-benzo[f]1,4-diazepin-3-yl))carboxamide

$$H_2N$$
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 

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The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil.  $^{1}\text{H}$  NMR (300 MHz, CD<sub>3</sub>OD)  $\delta$  7.20-7.60 (m, 9H), 5.45 (d, 1H), 3.45 (s, 3H), 2.80-2.00 (m, 8H), 1.90-1.50 (m, 8H). MS [M + H]  $^{+}$  445.

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#### Example 20

(2R)-2-Hydroxy-3-imidazol-2-yl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]propanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil.  $^{1}$ H-NMR(CDCl<sub>3</sub>) 9.16 (d, 1H), 7.69 - 7.52 (m, 5H), 7.33 (d, 1H), 7.24 - 7.15 (m, 3H), 5.45 (d, 1H), 3.42 (s, 3H), 2.24 - 2.14 (m, 3H), 2.11 - 1.84 (m, 1H), 1.83 - 1.72 (m, 4H), 1.66 - 1.56 (m, 2H); MS [M + H] + 583.

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### Example 21

2-Ethoxy-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]acetamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil. 1H-NMR(CDCl<sub>3</sub>) 8.17 (d, 1H), 7.76 - 7.60 (m, 5H), 7.40 (d, 1H), 7.32 - 7.23 (m, 1H), 6.99 (s, 1H), 5.52 (d, 1H), 4.01 (d, 2H), 3.67 - 3.60 (q, 2H), 3.48 (s, 3H), 2.48 - 2.40 (m, 2H), 2.14 - 2.08 (m, 2H), 1.89 - 1.83 (m, 3H), 1.64 (s, 2H), 1.29 (s, 3H); MS [M + H] 531.

## Example 22

25 3-Cyclopentyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]propanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil.  $^{1}\text{H-NMR}(\text{CDCl}_3)$  8.00 (d, 1H), 7.68 - 7.51 (m, 5H), 7.32 (d, 1H), 7.23 - 7.17 (m, 2H), 5.85 (s, 1H), 5.41 (d, 1H), 3.39 (s, 3H), 2.42 - 2.22 (m, 2H), 2.20 (t, 2H), 2.10 - 1.90 (m, 2H), 1.76 - 1.44 (m, 13H), 1.10 - 1.0 (m, 2H); MS [M + H]<sup>+</sup> 569.

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### Example 23

(2S)-2-Hydroxy-3-methyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]butanamide

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The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil.  $^{1}\text{H-NMR}(\text{CDCl}_3)$  8.50 (d, 1H), 7.76 - 7.61 (m, 4H), 7.41 (d, 1H), 7.32 - 7.28 (m, 1H), 7.03 (s, 1H), 5.53 - 5.51 (m, 1H), 4.06 (d, 1H), 3.48 (s, 3H), 2.57 - 2.35 (m, 2H), 2.30 - 2.10 (m, 2H), 2.09 - 1.90 (m, 1H), 1.80 - 1.70 (m, 5H), 1.05 (d, 3H), .94 (d, 3H); MS [M + H] + 545.

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(2S)-2-Cyclohexyl-2-hydroxy-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]acetamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil.  $_{1H-NMR}(CDCl_3)$  8.04 (d,1H), 7.67 - 7.51 (m, 4H), 7.31 (d, 1H), 7.23 - 7.18 (m, 1H), 7.02 (s, 1H), 5.42 (d, 1H), 3.94 (m, 1H), 3.78 (s, 3H), 2.42 - 2.25 (m, 2H), 2.18 - 1.90 (m, 2H), 1.80 - 1.65 (m, 9H), 1.30 - 1.00 (m, 6H); MS [M + H]<sup>+</sup> 585.

## Example 25

15 (2R)-2-Cyclohexyl-2-hydroxy-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]acetamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil. 1H-NMR(CDCl<sub>3</sub>) 8.17 (d, 1H), 7.67 - 7.52 (m, 4H), 7.32 (d, 1H), 7.23 - 7.15 (m, 1H), 6.89 (s, 1H), 5.45 (d, 1H), 3.92 (d, 1H), 3.39 (s, 3H), 2.45 - 2.25 (m, 2H), 2.10 - 1.95 (m, 2H), 1.80 - 1.50 (m, 10H), 1.25 - 1.00 (m, 6H); MS [M + H]<sup>+</sup> 585.

#### Example 26

(2S)-2-Amino-4-methyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]pentanamide

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The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil.  $^{1}\text{H-NMR}(CDCl_3)$  8.95 (s, 1H), 7.79 - 7.63 (m, 5H), 7.40 -

10 7.30 (m, 2H), 5.46 (s, 1H), 4.20 (d, 2H), 4.0 - 3.90 (m, 1H), 3.51 (s, 3H), 2.40 - 2.20 (m, 2H), 2.10 2.00 (m, 2H), 1.90 - 1.70 (m, 4H), 1.40 - 1.20 (m, 2H), 1.10 - 1.00 (m, 3H), 1.00 - .90 (m, 3H); MS [M + H] + 559.

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### Example 27

[(Cyclohexylcarbonylamino)cyclopentyl]-N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carboxamide

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The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil.  $^{1}\text{H-NMR}(\text{CDCl}_{3})$  8.10 (d, 1H), 7.75 - 7.62 (m, 3H), 7.42 - 7.39 (m, 3H), 7.30 - 7.20 (m, 1H), 6.11 (s, 1H), 5.47 (d, 1H), 3.46 (s, 3H), 2.50 - 2.45 (m, 2H), 2.30 - 2.10 (m, 1H), 2.09-1.75 (m, 9H), 1.70 - 1.60 (m, 1H), 1.50 - 1.40 (m, 2H), 1.39 - 1.20 (m, 3H); MS [M + H] + 555.

### Example 29

{[N-(3-Methylbutyl)carbamoyl]cyclopentyl}-N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carboxamide

### Example 30

15 4-Methyl-N-[(N-{1-methyl-2-oxo-5-[4 (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]pentanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil. 1H NMR (300 MHz CDCl<sub>3</sub>) 7.78-7.56 (m, 5H), 7.42-7.20 (m, 3H), 5.46 (d, 1H), 3.44(s, 3H), 2.48-2.20 (m, 4H), 2.05 (m, 2H), 1.80 (m, 4H), 1.58 (m, 3H), 0.88 (d, 6H). MS [M + H]<sup>+</sup> 543.

(2S)-2-Hydroxy-4-methyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]pentanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil. <sup>1</sup>H NMR (300 MHz CDCl<sub>3</sub>) 7.78-7.58 (m, 5H), 7.43-7.20 (m, 3H), 5.49 (d, 1H), 4.17 (m, 1H), 3.45 (s, 3H), 2.40 (m, 2H), 2.10 (m, 2H), 1.92-1.50 (m, 8H), 0.92 (m, 6H). MS [M + H] <sup>+</sup> 559.

#### Example 32

3-Methoxy-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]propanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil. 1H NMR (300 MHz CDCl<sub>3</sub>) 7.78-7.56 (m, 5H), 7.40-7.20 (m, 3H), 5.51 (d, 1H), 3.72 (m, 2H), 3.44 (s, 3H), 3.39 (s, 3H), 2.58-2.30 (m, 4H), 2.02 (m, 2H), 1.88 (m, 4H). MS [M+H]<sup>+</sup> 531.

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(2S)-2-Hydroxy-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]-3-phenylpropanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil. 1H NMR (300 MHz CDCl<sub>3</sub>) 7.72-7.57 (m, 5H), 7.40-7.20 (m, 3H), 5.48 (d, 1H), 4.37 (m, 1H), 3.42 (s, 3H), 3.20 (q, 1H), 2.97 (q, 1H), 2.38 (m, 2H), 1.96 (m, 2H), 1.80-1.52 (m, 4H). MS [M + H]<sup>+</sup> 593.

### Example 34

N-[(N-{1-Methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-15 benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]-2-(phenylmethoxy)acetamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino benzodiazepine employed in Example 1. The product was obtained as an oil. 1H NMR (300 MHz CDCl<sub>3</sub>) 7.74-7.55 (m, 5H), 7.40-7.20 (m, 3H), 5.48 (d, 1H), 4.61 (q, 2H), 4.12 (q, 2H), 3.44 (s, 3H), 2.42 (m, 2H), 2.05 (m, 2H), 1.80 (m, 4H). MS [M + H]<sup>+</sup> 593.

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(2S)-2-Hydroxy-3-methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}-butanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino bisbenzazepine employed in Example 10. The product was obtained as an oil.  $^{1}\text{H}$  NMR (300 MHz CDCl<sub>3</sub>) 7.64-7.35 (m, 8H), 5.25 (d, 1H), 4.06 (d, 1H), 3.35 (s, 3H), 2.42-2.05 (m, 6H), 1.80 (m, 4H), 1.05 (d, 3H), 0.95 (d, 3H). MS [M + H]<sup>+</sup> 450.

#### Example 36

(2S)-2-Hydroxy-4-methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-

15 yl))carbamoyl]cyclopentyl}pentanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino bisbenzazepine employed in Example 10. The product was obtained as an oil.  $^{1}$ H NMR (300 MHz CDCl<sub>3</sub>) 7.64-7.32 (m, 8H), 5.24 (d, 1H), 4.20 (q, 1H), 3.34 (s, 3H), 2.38 (m, 2H), 2.20-1.60 (m, 9H), 0.97 (m, 6H). MS [M + H]  $^{+}$  464.

#### Example 37

3-Cyclopentyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f] azaperhydroepin-7-yl))carbamoyl]cyclopentyl}propanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino bisbenzazepine employed in Example 10. The product was obtained as an oil. 1H NMR (300 MHz CDCl<sub>3</sub>) 7.64-7.35 (m, 8H), 5.25 (d, 1H),

5 3.36 (s, 3H), 2.42-1.45 (m, 21H). MS [M + H] + 474.

## Example 38

(2S) -2-Cyclohexyl-2-hydroxy-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}-acetamide

## Example 39

3-Cyclopropyl-N-{[N-((S)-5-methyl-6-oxo(7Hdibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}propanamide

The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil. <sup>1</sup>H NMR (300 MHz CDCl<sub>3</sub>) 7.56-7.24 (m, 8H), 5.16 (d, 1H), 3.27 (s, 3H), 2.38-2.15 (m, 4H), 2.10-1.82 (m, 2H), 1.78-1.42 (m, 6H), 0.64 (m, 1H), 0.36 (m, 2H), 0.02 (m, 2H). MS [M + H] 446.

#### Example 40

N-{[N-(1-Butyl-5-cyclopentyl-2-oxo(3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopentyl}-4-methylpentanamide

The amino benzodiazepine core was made in a manner similar to that described in the Scheme 6. The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil. <sup>1</sup>H NMR (300 MHz CDCl<sub>3</sub>) 7.60-7.22 (m, 4H), 5.25 (d, 1H), 4.36 (m, 1H), 3.56 (m, 1H), 3.31 (m, 1H), 2.40-0.78 (m, 34H). MS [M + H] + 509.

#### Example 41

N-{[N-(5-Cyclopentyl-1-methyl-2-oxo(3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopentyl}-4-methylpentanamide

The amino benzodiazepine core was made in a manner similar to that described in the Scheme 6. The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil. <sup>1</sup>H NMR (300 MHz CDCl<sub>3</sub>) 7.58-7.20 (m, 4H), 5.30 (d, 1H), 3.38 (s, 3H), 3.30 (m, 1H), 2.40-1.20 (m, 21H), 0.89 (d, 6H). MS [M + H] <sup>+</sup> 467.

Example 42

(2S)-2-Hydroxy-3-methyl-N-({N-[2-oxo-1-benzyl(3H,4H,5H-benzo[f]azaperhydroepin-3-yl)]carbamoyl}cyclopentyl) butanamide

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The amino benzoazepine core was made in a manner similar to that described in J. Med. Chem. 1999, 42, 2621. The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil. <sup>1</sup>H NMR (300 MHz CDCl<sub>3</sub>) 7.34-7.10 (m, 9H), 5.16 (m, 1H), 4.76 (m, 1H), 4.42 (m, 1H), 3.94 (m, 1H), 2.64-1.64 (m, 13H), 1.00-0.86 (m, 6H). MS [M + H]<sup>+</sup> 478.

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## Example 43

(2S)-4-Methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}-2-[(propylsulfonyl)amino]pentanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino bisbenzazepine employed in Example 10. The product was obtained as an oil. 1H NMR (300 MHz CDCl<sub>3</sub>) 7.62-7.32 (m, 8H), 5.40 (d, 1H), 5.24 (d, 1H), 4.02 (m, 1H), 3.34 (s, 3H), 2.98 (m, 2H), 2.42-1.58 (m, 13H), 0.94-0.85 (m, 9H). MS [M + H]<sup>+</sup> 569.

## Example 44

(2S)-2-Amino-4-methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl} pentanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino bisbenzazepine employed in Example 10. The product was obtained as an oil.  $^{1}\text{H}$  NMR (300 MHz CDCl<sub>3</sub>) 7.60-7.30 (m, 8H), 5.22 (d, 1H), 3.32 (s, 3H), 3.08 (m, 1H), 2.48 (s, 3H), 2.46-1.45 (m, 11H), 0.98-0.92 (q, 6H). MS [M + H]  $^{+}$  477.

#### Example 45

2,2-Difluoro-4-methyl-N-{[N-(5-methyl-6-oxo(7Hdibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}pentanamide

The title compound was prepared in a manner similar to that described for Example 4 using the amino bisbenzazepine employed in Example 10. The product was obtained as an oil. <sup>1</sup>H NMR (300 MHz CDCl<sub>3</sub>) 7.62-7.30 (m, 8H), 5.23 (d, 1H), 3.34 (s, 3H), 2.42-1.80 (m, 11H), 1.00 (d, 6H). MS [M + H] <sup>+</sup> 484.

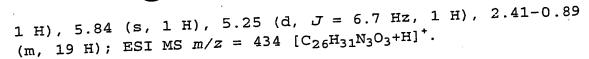
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#### Example 56

4-Methyl-N-{[N-(6-oxo(5H,7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}pentanamide

The title compound was prepared in a manner similar to that described for Example 4. The product was obtained as an oil.  $^1\text{H}$  NMR (300 MHz, CD<sub>3</sub>OD):  $\delta$  7.91 (d, J = 6.7 Hz, 1 H), 7.63 (m, 1 H), 7.51-7.28 (m, 7 H), 7.08 (d, J = 7.0 Hz,



## Example 57

5 N-({N-[5-(3,3-Dimethyl-2-oxobutyl)-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl)]carbamoyl}cyclopentyl)-4-methylpentanamide

To a solution of  $4-\text{methyl-N-}\{[N-(6-\text{oxo}(5\text{H},7\text{H-}$ dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl} 10 pentanamide (540 mg, 1.3 mmol), in DMF (25 mL) was added  $\mathrm{K}_{2}\mathrm{CO}_{3}$  (0.52 g, 3.7 mmol) and bromopinacolone (0.45 g, 2.5 mmol), and the solution was allowed to stir for 40 h at room temperature. The contents of the flask were partitioned between EtOAc and a 5% LiCl solution (150 mL each), the organic phase washed with 5% LiCl (2  $\times$  50 mL), 15 dried over anhydrous  $\mathrm{Na}_2\mathrm{SO}_4$  and concentrated to yield a white solid. This was further purified by column chromatography [silica gel, EtOAc/hexanes (35:65)] to yield the title compound (340 mg, 51%) as a white solid. title compound were separated by chiral HPLC using the 20 following conditions: Column, Chiralpak AD column (5 cm x 50 cm); Eluent, 96:4 Hexanes/2-Propanol; Flow rate, 100 mL/min; Monitoring wavelength, 220 nm.

25 Enantiomer A: 158 mg: mp 126-130 °C;  $^{1}$ H NMR (300 MHz, CDCl<sub>3</sub>)  $\delta$  7.89 (d, J = 6.7 Hz, 1 H), 7.62-7.13 (m, 8 H), 5.82 (s, 1 H), 5.35 (d, J = 7.4 Hz, 1 H), 4.62 ( $q_{ab}$ , J = 14.1 Hz, 2 H), 2.47-1.59 (m, 13 H), 1.22 (s, 9 H), 0.92 (d, J = 5.8 Hz, 6 H); IR (KBr) 3410, 2958, 2475, 1724, 1663 cm J = 5.8 MS m/z = 532 [ $C_{32}H_{41}N_{3}O_{4}$ +H] $^{+}$ ; HPLC 97.8 %,  $t_{r}$  = 24.83 min. (HPLC Conditions A).

Enantiomer B: 165 mg; mp 126-130 °C; ¹H NMR (300 MHz, CDCl<sub>3</sub>)  $\delta$  7.89 (d, J = 6.7 Hz, 1 H), 7.62-7.13 (m, 8 H), 5.82 (s, 1 H), 5.35 (d, J = 7.4 Hz, 1 H), 4.62 (q<sub>ab</sub>, J = 14.1 Hz, 2 H), 2.47-1.59 (m, 13 H), 1.22 (s, 9 H), 0.92 (d, J = 5.8 Hz, 6 H); IR (KBr) 3410, 2958, 2475, 1724, 1663 cm<sup>-1</sup>; ESI MS m/z = 532 [C<sub>32</sub>H<sub>41</sub>N<sub>3</sub>O<sub>4</sub>+H]<sup>+</sup>; HPLC 97.8 %,  $t_r$  = 24.83 min. (HPLC Conditions A).

#### Example 58

10 4-Methyl-N-[(N-{6-oxo-5-[(3-phenoxyphenyl)methyl](7Hdibenzo[d,f]azaperhydroepin-7-yl)}carbamoyl)cyclopentyl]
pentanamide

The title compound was prepared in a manner similar to that described for Example 57. The product was obtained as a white solid: mp 94-100 °C; <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  7.99 (d, J = 6.9 Hz, 1 H), 7.58-6.43 (m, 17 H), 5.82 (s, 1 H), 5.39 (d, J = 7.4 Hz, 1 H), 5.12 ( $q_{ab}$ , J = 14.5 Hz, 2 H), 2.47-1.57 (m, 13 H), 0.82 (d, J = 6.1 Hz, 6 H); IR (KBr) 3332, 2955, 1660, 1584, 1487 cm<sup>-1</sup>; ESI MS m/z = 616 [ $C_{39}H_{41}N_3O_4$ +H]<sup>+</sup>; HPLC 99.4%,  $t_r = 19.54$  min. (HPLC Conditions A).

#### Example 59

N-{[N-(5-Butyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carbamoyl]cyclopentyl}-4-methylpentanamide

The title compound was prepared in a manner similar to that described for Example 57. The product was obtained as a white solid. The enantiomers were separated by chiral HPLC using the following conditions: Column, Chiralcel OD column (5 cm x 50 cm); Eluent, 95:5 Hexanes/2-Propanol; Flow rate, 100 mL/min; Monitoring wavelength, 270 nm.

Enantiomer A: 197 mg: mp 123-126 °C; <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  7.99 (d, J = 7.0 Hz, 1 H), 7.58-6.43 (m, 8 H),

- 10 5.91 (s, 1 H), 5.26 (d, J = 7.4 Hz, 1 H), 4.29 (m, 2 H), 3.52 (m, 2 H), 2.43-1.19 (m, 15 H), 0.95 (d, J = 6.1 Hz, 6 H), 0.62 (m, 3 H); IR (KBr) 3325, 2957, 2871, 1655, 1498 cm<sup>-1</sup>; ESI MS  $m/z = 490 \ [C_{30}H_{39}N_{3}O_{3}+H]^{+}$ ; HPLC 100 %,  $t_{r} = 20.25 \ \text{min.}$  (HPLC Conditions A).
- Enantiomer B: 167 mg: mp 110-115 °C; <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  7.99 (d, J = 7.0 Hz, 1 H), 7.58-6.43 (m, 8 H), 5.91 (s, 1 H), 5.26 (d, J = 7.4 Hz, 1 H), 4.29 (m, 2 H), 3.52 (m, 2 H), 2.43-1.19 (m, 15 H), 0.95 (d, J = 6.1 Hz, 6 H), 0.62 (m, 3 H); IR (KBr) 3325, 2957, 2871, 1655, 1498 cm<sup>-1</sup>; ESI MS m/z = 490 [C<sub>30</sub>H<sub>39</sub>N<sub>3</sub>O<sub>3</sub>+H]<sup>+</sup>; HPLC 100 %,  $t_r$  = 20.26 min. (HPLC Conditions A).

### Example 60

4-Methyl-N-({N-[6-oxo-5-benzyl(7Hdibenzo[d,f]azaperhydroepin-7yl)]carbamoyl}cyclopentyl)pentanamide

The title compound was prepared in a manner similar to that described for Example 57. The product was obtained as a white solid: mp 103-106 °C; ¹H NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  8.01 (d, J=6.8 Hz, 1 H), 7.52-7.25 (m, 8 H), 7.05 (m, 3 H), 6.78 (m, 2 H), 5.84 (s, 1 H), 5.36 (d, J=7.4 Hz, 1 H), 5.04 ( $q_{ab}$ , J=14.7 Hz, 2 H), 2.41-1.26 (m, 13 H), 0.91 (d, J=5.8 Hz, 6 H); IR (KBr) 3325, 2956, 1655, 1498, 1396 cm<sup>-1</sup>; ESI MS m/z=524 [C<sub>33</sub>H<sub>37</sub>N<sub>3</sub>O<sub>3</sub>+H]<sup>+</sup>; HPLC 100 %,  $t_r=27.04$  min. (HPLC Conditions A).

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#### Example 61

N-({N-[5-(tert-Butyl)-1-methyl-2-oxo(3H-benzo[f]1,4-diazepin-3-yl)]carbamoyl}cyclopentyl)-4-methylpentanamide

Scheme 7

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## c) Preparation of 25

To a stirred solution of  $\underline{23}$  (see Scheme 6) (1.0 equiv) in  $\mathrm{CH_2Cl_2}$  (0.1 M) was added a 30% solution of HBr in acetic acid (16 equiv). The mixture was stirred for 14 h. The reaction mixture was concentrated in vacuo and dissolved in EtOAc and water and separated. The aqueous layer was made basic using 6 N NaOH and was extracted with  $\mathrm{CH_2Cl_2}$ . The organic extracts were washed with brine, dried over  $\mathrm{Na_2SO_4}$ , filtered and concentrated. The resulting solid was

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dissolved in CH<sub>2</sub>Cl<sub>2</sub> and added to a stirring solution of the acid 24 (1.2 equiv), EDC-HCl (1.5 equiv), HOBt (1.5 equiv), and DIPEA (5.0 equiv) in CH<sub>2</sub>Cl<sub>2</sub> (0.15 M). The reaction was stirred overnight, quenched with water, washed with 20% citric acid (3x), sat NaHCO<sub>3</sub> (2x), brine, dried over Na<sub>2</sub>SO<sub>4</sub>, filtered and concentrated. Crude material was recrystallized from EtOAc and Et<sub>2</sub>O to give 25 (4.4 g, 95%) as a white powder: <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) & 7.71-6.98 (m, 6 H), 5.87 (s, 1 H), 5.29 (d, 1 H), 2.38 (m, 2 H), 2.21 (t, 2 H) 2.01 (m, 2 H), 1.52 (m, 7 H), 1.23 (s, 9 H), 0.88 (d, 6 H).

# d) Preparation of Example 61.

To a suspension of 25 (1 equiv) and freshly powdered  ${\rm K_2CO_3}$  (3.0 equiv) in DMF (0.05 M) was added methyl iodide 15 (1.5 equiv). The mixture was stirred (5 h). To the reaction was added EtOAc and water and the layers separated. The organic layer was washed with 5% LiCl (2x), brine, dried over Na2SO4, filtered and concentrated. resulting material was dissolved in Et<sub>2</sub>O and concentrated 20 in vacuo providing N-( $\{N-[5-(tert-butyl)-1-methyl-2-oxo(3H-butyl)-1-m$ benzo[f]1,4-diazepin-3-yl)]carbamoyl}-cyclopentyl)-4methylpentanamide (60 mg, 66%) as a white powder: mp 175-178 °C;  $^{1}$ H NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  7.71-7.17 (m, 5 H), 5.89 (s, 1 H), 5.23 (d, 1 H), 3.34 (s, 3 H), 2.41-2.29 (m, 3 H), 25 2.21 (m, 2 H), 2.04 (m, 3 H), 1.80 (m, 4 H), 1.60 (m, 1 H), 1.18 (s, 9 H), 0.90 (d, 6 H); ESI MS m/z = 455 $[C_{26}H_{38}N_4O_3+H]^+$ ; IR (KBr) = 3324, 2958, 1677, 1508, 1366, 1197 cm<sup>-1</sup>; HPLC 96.8%,  $t_r = 15.75$  min. (HPLC Conditions A).

### Example 62

N-({N-[5-(tert-Butyl)-1-butyl-2-oxo(3H-benzo[f]1,4-diazepin-3-yl)]carbamoyl}cyclopentyl)-4-methylpentanamide

The title compound was prepared in a manner similar to that described for Example 62. The product was obtained as a white powder (450 mg, 70%): mp 175-177 °C;  $^{1}$ H NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  7.71-7.13 (m, 5 H), 5.89 (s, 1 H), 5.20 (d, 1 H), 4.36 (m, 1 H), 3.50 (m, 1 H), 2.32 (m, 3 H) 2.20 (m, 2 H), 2.02 (m, 3 H), 1.80 (m, 4 H), 1.57 (m, 1 H), 1.35 (m, 2 H) 1.26 (s, 9 H), 1.21 (m, 2 H), 0.89 (d, 6 H), 0.83 (t, 3 H); ESI MS  $m/z = 497 [C_{29}H_{44}N_4O_3+H]^+$ ; IR (KBr) = 3321, 2959, 2363, 1676, 1508, 1365 cm<sup>-1</sup>; HPLC 95.4%,  $t_r = 19.69$  min. 10. (HPLC Conditions A).

#### Example 63

 $N-({N-[5-Butyl-2-oxo-1-(2-pyridylmethyl)(3H-benzo[f]1,4-benzo[f]]})$ diazepin-3-yl)]carbamoyl}cyclopentyl)-4-methylpentanamide 15

The title compound was prepared in a manner similar to that described for Example 62. The product was obtained as a white powder: mp 63-67 °C;  $^{1}\text{H}$  NMR (CDCl3)  $\delta$  8.46-7.11 (m, 8 H), 5.89 (s, 1 H), 5.40 (d, J = 6.87 Hz, 1 H), 5.28 (d, J20 = 15.77 Hz, 1 H), 5.12 (d, J = 15.82 Hz, 1 H), 2.74 (m, 2 H), 2.43-0.77 (m, 27 H); ESI MS  $m/z = 532 [C_{31}H_{41}N_{5}O_{3}+H]^{+}$ ; IR (KBr) 3310 (br.), 1670 cm<sup>-1</sup>; HPLC >95% %  $t_r = 17.07$  min. (HPLC Conditions A). Anal. Calcd for [C31H41N5O3.0.5H2O]: C, 68.86; H, 7.83; N, 12.95. Found: C, 68.73; H, 7.86; N, 25 12.79.

Tables 1-4 below provide representative Examples of the compounds of Formula (I) of the present invention.

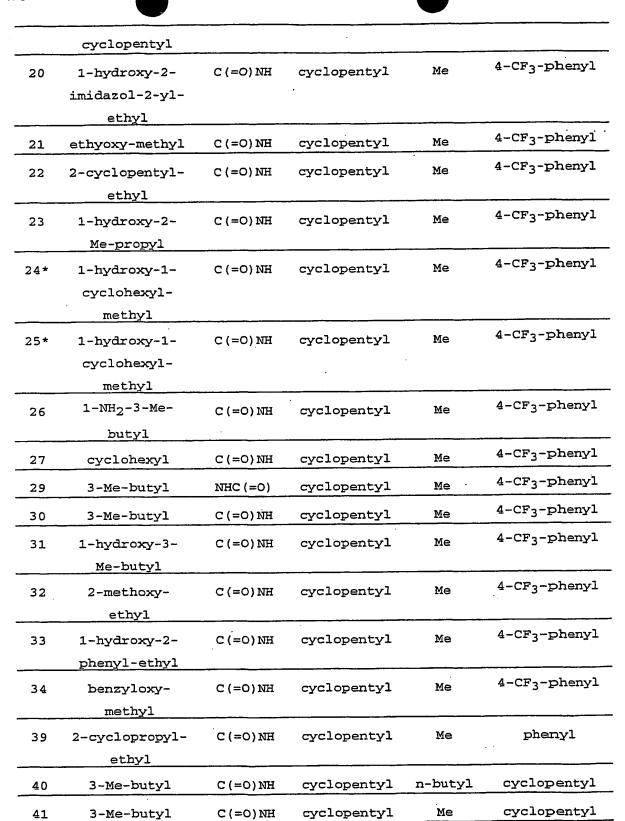
Table 1

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<u>.</u>	_3		С	-WXYZ	R11
Ex#	R <sup>3</sup>		cyclopentyl	Me	phenyl
2	3-Me-butyl	NHC (=0)	cyclopentyl	Me	phenyl
3	n-butyl	NHC (=0)		Me	phenyl
4	3,5-diF-benzyl	C (=0) NH	cyclohexyl		phenyl
5	3,5-diF-benzyl	C (=0) NH	cyclopentyl	Me	
6	3,5-diF-benzyl	C (=0) NH	cyclopropyl	Me	phenyl
7	cyclopentyl	C (=0) NH	cyclohexyl	Me	phenyl
	ethyl				1
8,	3,5-diF-benzyl	C (=0) NH	4-piperidyl	Me	phenyl
9	3,5-diF-benzyl	C (=0) NH	N-	Me	phenyl
			benzyloxy-		
			carbonyl-4-		
			piperidyl		
11	benzyl	O-C (=0) NH	cyclopentyl	Me	4-CF3-phenyl
14	3-phenyl-1,1-	C(=0)NH	cyclopentyl	Me	4-CF3-phenyl
	diF-propyl				4-CF3-phenyl
15	2-(4-	C (=0) MH	cyclopentyl	Me	±-013 511011
	piperidyl)				
	ethyl				4 67
16	1-hydroxy-3-	C (=0) NH	cyclopentyl	Me	4-CF3-phenyl
	Me-butyl				4-CF3-pheny
17	2-cyclopropyl-	C (=0) NH	cyclopentyl	Me	#-C1-3 P110111
	ethyl				nhonsil
19	1-amino	C (=0) NH	cyclopentyl	Me	phenyl

t-butyl

t-butyl



cyclopentyl

cyclopentyl

Me

n-butyl

C(=0)NH

C(=0)NH

61

62

3-Me-butyl

3-Me-butyl



63	3-Me-butyl	C (=0) NH	cyclopentyl	' 2-	n-butyl
		•		pyridyl	
				-methyl	

\* stereoisomers

Table 2

	3		С	Z-Y-X-W-
Ex.#	R <sup>3</sup>	L		
1	3-Me-butyl	NHC (=0)	cyclopentyl	Me
10	3-Me-butyl	C(=0)NH	cyclopentyl	Me
35	1-hydroxy-2-Me- propyl	C (=0) NH	cyclopentyl	Me
36	1-hydroxy-3-Me- butyl	C (=0) NH	cyclopentyl	Me
	2-cyclopentyl-ethyl	C (=0) NH	cyclopentyl	Me
37	1-hydroxy-1-	C (=0) NH	cyclopentyl	Me
	cyclohexyl-methyl			
43	1-(propyl-	C (=0) NH	cyclopentyl	Me
	sulfamide)-3-Me-			
	butyl			
44	. 1-(N-Me-amino)-3-	C(=0)NH	cyclopentyl	Me
	Me-butyl			
45	1,1-diF-3-Me-butyl	C(=0)NH	cyclopentyl	<u>Me</u>
56	3-Me-butyl	C(=0)NH	cyclopentyl	н
57	3-Me-butyl	C (=0) NH	cyclopentyl	3,3-dimethyl-2- oxobutyl
	3-Me-butyl	C(=0)NH	cyclopentyl	3-phenoxy-benzy
58	3-Me-butyl	C (=0) NH	cyclopentyl	n-butyl
59	3-Me-butyl	C (=0) NH	•	benzyl
60	2-146- 2003 1			

#### Table 3

Ex.#	R <sup>3</sup>	L	С	Z-Y-X-W-
12	1-hydroxy-3-Me-	C (=0) NH	cyclopropyl	3-(4-F-phenoxy)-
	butyl			benzyl
13	1-hydroxy-3-Me-	C (=0) NH	cyclopentyl	3-(4-F-phenoxy)-
	propyl			benzyl

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Ex.#	<sub>R</sub> 3	L	С	Z-Y-X-W-
42	1-hydroxy-2-Me-	C (=0) NH	cyclopentyl	benzyl
	propyl			

### UTILITY

10 A $\beta$  production has been implicated in the pathology of Alzheimer's Disease (AD). The compounds of the present invention have utility for the prevention and treatment of AD by inhibiting A $\beta$  production. Methods of treatment target formation of A $\beta$  production through the enzymes involved in the proteolytic processing of  $\beta$  amyloid precursor protein. Compounds that inhibit  $\beta$  or  $\gamma$  secretase activity, either directly or indirectly, control the production of A $\beta$ . Such inhibition of  $\beta$  or  $\gamma$  secretases reduces production of A $\beta$ , and is expected to reduce or

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prevent the neurological disorders associated with  $\ensuremath{A\beta}$  protein, such as Alzheimer's Disease.

Cellular screening methods for inhibitors of AB production, testing methods for the *in vivo* suppression of AB production, and assays for the detection of secretase activity are known in the art and have been disclosed in numerous publications, including *J.Med.Chem.* 1999, 42, 3889-3898, PCT publication number WO 98/22493, EPO publication number 0652009, US patent 5703129 and US patent 5593846; all hereby incorporated by reference.

The compounds of the present invention have utility for the prevention and treatment of disorders involving  $A\beta$  production, such as cerebrovascular disorders.

Compounds of Formula (I) are expected to possess  $\gamma$ secretase inhibitory activity. The  $\gamma$ -secretase inhibitory activity of the compound of the present invention is demonstrated using assays for such activity, for example, using the assay described below. Compounds of the present invention have been shown to inhibit the activity of  $\gamma$ secretase, as determined by the A $\beta$  immunoprecipitation assay.

Compounds provided by this invention should also be useful as a standard and reagent in determining the ability of a potential pharmaceutical to inhibit  $A\beta$  production.

25 These would be provided in commercial kits comprising a compound of this invention.

As used herein "µg" denotes microgram, "mg" denotes milligram, "g" denotes gram, "µL" denotes microliter, "mL" denotes milliliter, "L" denotes liter, "nM" denotes nanomolar, "µM" denotes micromolar, "mM" denotes millimolar, "M" denotes molar, "nm" denotes nanometer, "SDS" denotes sodium dodecyl sulfate, and "DMSO" denotes dimethyl sulfoxide, and "EDTA" denotes ethylenediaminetetraacetic acid.

35 A compound is considered to be active if it has an IC50 or  $K_1$  value of less than about 100 $\mu$ M for the inhibition of A $\beta$  production. Preferrably the IC50 or  $K_1$ 

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value is less than about 10 $\mu$ M; more preferrably the IC50 or K<sub>i</sub> value is less than about 0.1 $\mu$ M. The present invention has been shown to inhibit A $\beta$  protein production with an IC50 or K<sub>i</sub> value of less than 100 $\mu$ M.

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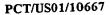
# β amyloid precursor protein accumulation assay

A novel assay to evaluate the accumulation of  $A\beta$  protein was developed to detect potential inhibitors of secretase. The assay uses the N 9 cell line, characterized for expression of exogenous APP by immunoblotting and immunoprecipitation.

The effect of test compounds on the accumulation of Aß in the conditioned medium is tested by immunoprecipitation. Briefly, N 9 cells are grown to confluency in 6-well plates and washed twice with 1 x Hank's buffered salt solution. The cells are starved in methionine/cysteine deficient media for 30 min, followed by replacement with fresh deficient media containing 150uCi S35 Translabel (Amersham). Test compounds dissolved in DMSO (final concentration 1%) are added together with the addition of radiolabel. The cells are incubated for 4 h at 37 °C in a tissue culture incubator.

At the end of the incubation period, the conditioned medium is harvested and pre-cleared by the addition of 5 μl normal mouse serum and 50μl of protein A Sepharose (Pharmacia), mixed by end-over-end rotation for 30 minutes at 4 °C, followed by a brief centrifugation in a microfuge. The supernatant is then harvested and transferred to fresh tubes containing 5ug of a monoclonal antibody (clone 1101.1; directed against an internal peptide sequence in Aβ) and 50 μl protein A Sepharose. After incubation overnight at 4°C, the samples are washed three times with high salt washing buffer (50mM Tris, pH 7.5, 500mM NaCl, 5mM EDTA, 0.5% Nonidet P-40), three times with low salt wash buffer (50mM Tris, pH 7.5, 150mM NaCl, 5mM EDTA, 0.5% Nonidet P-40), and three times with 10mM Tris, pH 7.5. The pellet after the last wash is resuspended in SDS sample

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buffer (Laemmli, 1970) and boiled for 3 minutes. The supernatant is then fractionated on either 10-20% Tris/Tricine SDS gels or on 16.5% Tris/Tricine SDS gels. The gels are dried and exposed to X-ray film or analyzed by phosphorimaging. The resulting image is analyzed for the presence of A $\beta$  polypeptides. The steady-state level of A $\beta$  in the presence of a test compound is compared to wells treated with DMSO (1%) alone. A typical test compound blocks A $\beta$  accumulation in the conditioned medium, and is therefore considered active, with an IC50 less than 100  $\mu$ M.

# C-Terminus $\beta$ Amyloid Precursor Protein Accumulation Assay

The effect of a test compound on the accumulation of C-terminal fragments is determined by immunoprecipitation of APP and fragments thereof from cell lysates. N 9 cells 15 are metabolically labeled as above in the presence or absence of test compounds. At the end of the incubation period, the conditioned medium are harvested and cells lysed in RIPA buffer (10 mM Tris, pH 8.0 containing 1% Triton X-100, 1% deoxycholate, 0.1% SDS, 150mM NaCl, 0.125% 20 NaN3). Again, lysates are precleared with 5ul normal rabbit serum / 50ul protein A Sepharose, followed by the addition of BC-1 antiserum (15µl;) and 50µl protein A Sepharose for 16 hours at 4°C. The immunoprecipitates are washed as above, bound proteins eluted by boiling in SDS 25 sample buffer and fractionated by Tris/Tricine SDS-PAGE. After exposure to X-ray film or phosphorimager, the resulting images are analyzed for the presence of Cterminal APP fragments. The steady-state level of Cterminal APP fragments is compared to wells treated with 30 DMSO (1%) alone. A typical test compound stimulates Cterminal fragment accumulation in the cell lysates, and is therefore considered active, with an  $IC_{50}$  less than 100  $\mu M$ .

# 35 Aβ-Immunoprecipitation Assay

This immunoprecipitation assay is specific for  $\gamma$ -secretase (i.e., proteolytic activity required to generate

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the C-terminal end of  $A\beta$  either by direct cleavage or generating a C-terminal extended species which is subsequently further proteolyzed). N 9 cells are pulse labeled in the presence of a reported  $\gamma$ -secretase inhibitor (MDL 28170) for 1 h, followed by washing to remove radiolabel and MDL 28170. The media is replaced and test compounds are added. The cells are chased for increasing periods of times and  $A\beta$  is isolated from the conditioned medium and C-terminal fragments from cell lysates (see above). The test compound is characterized whether a stabilization of C-terminal fragments is observed and whether  $A\beta$  is generated from these accumulated precursor. A typical test compound prevents the generation of  $A\beta$  out of accumulated C-terminal fragments and is considered active with an IC50 less than 100  $\mu$ M.

### Dosage and Formulation

The compound of the present invention can be administered orally using any pharmaceutically acceptable dosage form known in the art for such administration. The active ingredient can be supplied in solid dosage forms such as dry powders, granules, tablets or capsules, or in liquid dosage forms, such as syrups or aqueous suspensions. The active ingredient can be administered alone, but is generally administered with a pharmaceutical carrier. A valuable treatise with respect to pharmaceutical dosage forms is Remington's Pharmaceutical Sciences, Mack Publishing.

The compound of the present invention can be administered in such oral dosage forms as tablets, capsules (each of which includes sustained release or timed release formulations), pills, powders, granules, elixirs, tinctures, suspensions, syrups, and emulsions. Likewise, they may also be administered in intravenous (bolus or infusion), intraperitoneal, subcutaneous, or intramuscular form, all using dosage forms well known to those of ordinary skill in the pharmaceutical arts. An effective

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but non-toxic amount of the compound desired can be employed to prevent or treat neurological disorders related to  $\beta$ -amyloid production or accumulation, such as Alzheimer's disease and Down's Syndrome.

The compound of this invention can be administered by any means that produces contact of the active agent with the agent's site of action in the body of a host, such as a human or a mammal. The compound can be administered by any conventional means available for use in conjunction with pharmaceuticals, either as individual therapeutic agents or in a combination of therapeutic agents. The compound can be administered alone, but generally administered with a pharmaceutical carrier selected on the basis of the chosen route of administration and standard pharmaceutical practice.

The dosage regimen for the compound of the present invention will, of course, vary depending upon known factors, such as the pharmacodynamic characteristics of the particular agent and its mode and route of administration; the species, age, sex, health, medical condition, and weight of the recipient; the nature and extent of the symptoms; the kind of concurrent treatment; the frequency of treatment; the route of administration, the renal and hepatic function of the patient, and the effect desired. An ordinarily skilled physician or veterinarian can readily determine and prescribe the effective amount of the drug required to prevent, counter, or arrest the progress of the condition.

Advantageously, the compounds of the present invention may be administered in a single daily dose, or the total daily dosage may be administered in divided doses of two, three, or four times daily.

The compound for the present invention can be administered in intranasal form via topical use of suitable intranasal vehicles, or via transdermal routes, using those forms of transdermal skin patches wall known to those of ordinary skill in that art. To be administered in the form

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of a transdermal delivery system, the dosage administration will, of course, be continuous rather than intermittant throughout the dosage regimen.

In the methods of the present invention, the compound herein described in detail can form the active ingredient, and is typically administered in admixture with suitable pharmaceutical diluents, excipients, or carriers (collectively referred to herein as carrier materials) suitably selected with respect to the intended form of administration, that is, oral tablets, capsules, elixirs, syrups and the like, and consistent with conventional pharmaceutical practices.

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For instance, for oral administration in the form of a tablet or capsule, the active drug component can be combined with an oral, non-toxic, pharmaceutically acceptable, inert carrier such as lactose, starch, sucrose, glucose, methyl callulose, magnesium stearate, dicalcium phosphate, calcium sulfate, mannitol, sorbitol and the like; for oral administration in liquid form, the oral drug components can be combined with any oral, non-toxic, pharmaceutically acceptable inert carrier such as ethanol, glycerol, water, and the like. Moreover, when desired or necessary, suitable binders, lubricants, disintegrating agents, and coloring agents can also be incorporated into the mixture. Suitable binders include starch, gelatin, natural sugars such as glucose or  $\beta$ -lactose, corn sweeteners, natural and synthetic gums such as acacia, tragacanth, or sodium alginate, carboxymethylcellulose, polyethylene glycol, waxes, and the like. Lubricants used in these dosage forms include sodium oleate, sodium stearate, magnesium stearate, sodium benzoate, sodium acetate, sodium chloride, and the like. Disintegrators include, without limitation, starch, methyl cellulose, agar, bentonite, xanthan gum, and the like.

The compound of the present invention can also be administered in the form of liposome delivery systems, such as small unilamellar vesicles, large unilamallar vesicles,

and multilamellar vesicles. Liposomes can be formed from a variety of phospholipids, such as cholesterol, stearylamine, or phosphatidylcholines.

Compound of the present invention may also be coupled with soluble polymers as targetable drug carriers. Such polymers can include polyvinylpyrrolidone, pyran copolymer, polyhydroxypropylmethacrylamide-phenol, polyhydroxyethylaspartamidephenol, or polyethyleneoxide-polylysine substituted with palmitoyl residues.

10 Furthermore, the compounds of the present invention may be coupled to a class of biodegradable polymers useful in achieving controlled release of a drug, for example, polylactic acid, polyglycolic acid, copolymers of polylactic and polyglycolic acid, polyepsilon caprolactone, polyhydroxy butyric acid, polyorthoesters, polyacetals, polydihydropyrans, polycyanoacylates, and crosslinked or amphipathic block copolymers of hydrogels.

Gelatin capsules may contain the active ingredient and powdered carriers, such as lactose, starch, cellulose derivatives, magnesium stearate, stearic acid, and the like. Similar diluents can be used to make compressed tablets. Both tablets and capsules can be manufactured as sustained release products to provide for continuous release of medication over a period of hours. Compressed tablets can be sugar coated or film coated to mask any unpleasant taste and protect the tablet from the atmosphere, or enteric coated for selective disintegration in the gastrointestinal tract.

Liquid dosage forms for oral administration can contain coloring and flavoring to increase patient acceptance. In general, water, a suitable oil, saline, aqueous dextrose (glucose), and related sugar solutions and glycols such as propylene glycol or polyethylene glycols are suitable carriers for parenteral solutions. Solutions for parenteral administration preferably contain a water soluble salt of the active ingredient, suitable stabilizing agents, and if necessary, buffer substances. Antioxidizing

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agents such as sodium bisulfite, sodium sulfite, or ascorbic acid, either alone or combined, are suitable stabilizing agents. Also used are citric acid and its salts and sodium EDTA. In addition, parenteral solutions can contain preservatives, such as benzalkonium chloride, methyl- or propyl-paraben, and chlorobutanol.

Suitable pharmaceutical carriers are described in Remington's Pharmaceutical Sciences, Mack Publishing Company, a standard reference text in this field.

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## CLAIMS

What is claimed is:

A compound of Formula (I): 5 1.

or a stereoisomer, pharmaceutically acceptable salt or 10 prodrug thereof, wherein:

L is  $-NR^{26}C(=0)$ -,  $-C(=0)NR^{26}$ -,  $-NR^{26}C(=0)$ 0-,  $-OC(=0)NR^{26}$ , or  $-NR^{26}C(=0)NR^{26}-;$ 

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$$R^{3} \text{ is } -(CR^{7}R^{7a})n^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}S^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}O^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}N(R^{7b})^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}S(=0)^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}S(=0)^{2}^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}C(=0)^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}N(R^{7b})C(=0)^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}C(=0)N(R^{7b})^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}N(R^{7b})S(=0)^{2}^{-}(CR^{7}R^{7a})m^{-}R^{4},$$

$$-(CR^{7}R^{7a})1^{-}S(=0)^{2}N(R^{7b})^{-}(CR^{7}R^{7a})m^{-}R^{4};$$

n is 0, 1, 2, or 3;

m is 0, 1, 2, or 3; 30

1 is 1, 2, or 3;

Ring C is a 3 to 8 membered carbocycle,

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wherein the carbocycle is saturated or partially saturated;

optionally, the carbocycle contains a heteroatom selected from -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, and -N( $\mathbb{R}^{20}$ )-; and

wherein the carbocycle is substituted with 0-4 R<sup>21</sup>;

 $R^4$  is H, OH,  $OR^{14a}$ ,

 $C_1-C_8$  alkyl substituted with 0-3  $R^{4a}$ ,

10  $C_2-C_8$  alkenyl substituted with 0-3  $R^{4a}$ ,

 $C_2$ - $C_8$  alkynyl substituted with 0-3  $R^{4a}$ ,

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;

R<sup>4a</sup>, at each occurrence, is independently selected from H,

OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and

5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>4b</sup>;

 $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

R6 is H;

 $C_{1}$ - $C_{6}$  alkyl substituted with 0-3  $R^{6a}$ ;  $C_{3}$ - $C_{10}$  carbocycle substituted with 0-3  $R^{6b}$ ; or  $C_{6}$ - $C_{10}$  aryl substituted with 0-3  $R^{6b}$ ;

- $\mathbb{R}^{6a}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , aryl and CF3;
- $R^{6b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>,  $NR^{15}R^{16}$ ,  $CF_3$ ,  $C_1$ - $C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, and  $C_1-C_4$  haloalkoxy;
- $\mathbb{R}^7$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl, phenyl 10 substituted with 0-5 R7c;
  - ${\bf R}^{7a}$ , at each occurrence, is independently selected from H, Cl, F, Br, I, CN, CF<sub>3</sub>, and C<sub>1</sub>-C<sub>4</sub> alkyl;
- 15  $R^{7b}$  is independently selected from H and  $C_1$ - $C_4$  alkyl;
- $\mathbb{R}^{7c}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $CF_3$ ,  $C_1-C_4$  alkoxy, and  $C_1-C_4$ alkyl; 20
  - B is a 5 to 10 membered lactam, wherein the lactam is saturated, partially saturated

or unsaturated;

- wherein each additional lactam carbon is substituted 25 with 0-2  $R^{11}$ ; and,
  - optionally, the lactam contains an additional heteroatom selected from -O-, -S-, -S(=O)-,  $-S(=0)_2-$ , -N=, -NH-, and  $-N(R^{10})-$ ;
- 30  $R^{10}$  is H, C(=0) $R^{17}$ , C(=0) $OR^{17}$ , C(=0) $NR^{18}R^{19}$ ,  $S(=0)_2NR^{18}R^{19}$ ,  $S(=0)_2R^{17}$ ;

 $C_1-C_6$  alkyl optionally substituted with 0-3  $R^{10a}$ ;  $C_6-C_{10}$  aryl substituted with 0-4  $R^{10b}$ ;

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{10b}$ ; or 35 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{10b}$ ;

- R10a, at each occurrence, is independently selected from H, C1-C6 alkyl, OR14, Cl, F, Br, I, =0, CN, NO2, NR15R16, CF3, aryl substituted with 0-4 R10b; C3-C10 carbocycle substituted with 0-3 R10b, and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R10b;
  - $R^{10b}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkyl-S-;
- R<sup>11</sup>, at each occurrence, is independently selected from H, C<sub>1</sub>-C<sub>4</sub> alkoxy, Cl, F, Br, I, =0, CN, NO<sub>2</sub>, NR<sup>18</sup>R<sup>19</sup>, C(=0)R<sup>17</sup>, C(=0)OR<sup>17</sup>, C(=0)NR<sup>18</sup>R<sup>19</sup>, S(=0)<sub>2</sub>NR<sup>18</sup>R<sup>19</sup>, CF<sub>3</sub>; C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 0-3 R<sup>11a</sup>; C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>11b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>11b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>11b</sup>;
- R<sup>11a</sup>, at each occurrence, is independently selected from
  H, C<sub>1</sub>-C<sub>6</sub> alkyl, OR<sup>14</sup>, Cl, F, Br, I, =0, CN, NO<sub>2</sub>,
  NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>;
  phenyl substituted with 0-3 R<sup>11b</sup>;
  C<sub>3</sub>-C<sub>6</sub> cycloalkyl substituted with 0-3 R<sup>11b</sup>; and
  5 to 6 membered heterocycle containing 1 to 3
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 6 membered heterocycle
  is substituted with 0-3 R<sup>11b</sup>;

- $R^{11b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,
- $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- additionally, two  $\mathbb{R}^{11}$  substituents on adjacent atoms may be combined to form a 5 to 6 membered heteroaryl fused radical, wherein said 5 to 6 membered heteroaryl fused radical comprises 1 or 2 heteroatoms selected from N, 10 O, and S; wherein said 5 to 6 membered heteroaryl fused radical is substituted with  $0-3 R^{13}$ ;
- additionally, two  $\mathbb{R}^{11}$  substituents on the same or adjacent 15 carbon atoms may be combined to form a  $C_3$ - $C_6$ carbocycle substituted with 0-3 R13;
- additionally, two R11 substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said 20 benzo fused radical is substituted with 0-4 R13;

W is  $-(CR^8R^{8a})_{p}^{-}$ ;

- p is 0, 1, 2, 3, or 4; 25
  - ${\bf R^8}$  and  ${\bf R^{8a}}$ , at each occurrence, are independently selected from H, F,  $C_1-C_4$  alkyl,  $C_2-C_4$  alkenyl,  $C_2-C_4$  alkynyl and C3-C8 cycloalkyl;
- 30 X is a bond;  $C_6-C_{10}$  aryl substituted with 0-3  $R^{\mathrm{Xb}}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{\mathrm{Xb}}$ ; or 5 to 10 membered heterocycle substituted with 0-2  $R^{\mathrm{Xb}}$ ;
- RXb, at each occurrence, is independently selected from H, 35 OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,

S(=0) CH<sub>3</sub>,  $S(=0)_2$  CH<sub>3</sub>,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkoxy, and  $C_1$ - $C_4$  haloalkoxy;

Y is a bond or  $-(CR^9R^{9a})t-V-(CR^9R^{9a})u-$ ;

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t is 0, 1, 2, or 3;

u is 0, 1, 2, or 3;

10  $R^9$  and  $R^{9a}$ , at each occurrence, are independently selected from H, F,  $C_1$ - $C_6$  alkyl and  $C_3$ - $C_8$  cycloalkyl;

V is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)2-,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)$ 2-,  $-S(=0)NR^{19b}$ -, -C(=0)0-, or -OC(=0)-;

Z is H;

 $C_1-C_8$  alkyl substituted with 1-3  $R^{12}$ ;

 $C_2$ - $\tilde{C}_4$  alkenyl substituted with 1-3  $R^{12}$ ;

C2-C4 alkynyl substituted with 1-3 R12;

 $C_1-C_8$  alkyl substituted with 0-3  $R^{12a}$ ;

 $C_2-C_4$  alkenyl substituted with 0-3  $R^{12a}$ ;

C<sub>2</sub>-C<sub>4</sub> alkynyl substituted with 0-3 R<sup>12a</sup>;

25  $C_6-C_{10}$  aryl substituted with 0-4 R<sup>12b</sup>;

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; or

- 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;
- $R^{12}$ , at each occurrence, is independently selected from  $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{12b}$ ;

- R12a, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=0)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 10 R<sup>12b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 15  $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- 20  $R^{14}$  is H, phenyl substituted with 0-4  $R^{14b}$ , benzyl substituted with 0-4  $R^{14b}$ ,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, or  $C_3$ - $C_6$  cycloalkyl;
- $\mathbb{R}^{14a}$  is H,  $\mathbb{C}_6$ - $\mathbb{C}_{10}$  aryl, benzyl, heterocycle, or  $\mathbb{C}_1$ - $\mathbb{C}_4$  alkyl;
- R14b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,
- 30  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- R<sup>15</sup>, at each occurrence, is independently selected from H, C<sub>1</sub>-C<sub>6</sub> alkyl, aryl-(C<sub>1</sub>-C<sub>6</sub> alkyl)- wherein the aryl is substituted with 0-4 R<sup>15b</sup>, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=0)<sub>2</sub>-;
  - R15b, at each occurrence, is independently selected from

H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)2CH<sub>3</sub>,  $C_1$ -C<sub>6</sub> alkyl,  $C_1$ -C<sub>4</sub> alkoxy,  $C_1$ -C<sub>4</sub> haloalkyl,  $C_1$ -C<sub>4</sub> haloalkoxy, and  $C_1$ -C<sub>4</sub> haloalkyl-S-;

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- R16, at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- 10  $R^{17}$  is H,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, aryl substituted by 0-4  $R^{17a}$ , or  $-CH_2$ -aryl substituted by 0-4  $R^{17a}$ ;
- R<sup>17a</sup> is H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, butoxy, -OH, F, Cl, Br, I, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, S(0)CH<sub>3</sub>,  $SO_2$ CH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, or C<sub>1</sub>-C<sub>4</sub> haloalkyl;
- R<sup>18</sup>, at each occurrence, is independently selected from H, C<sub>1</sub>-C<sub>6</sub> alkyl, phenyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=0)<sub>2</sub>-;
  - $R^{19}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;

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- $R^{20}$  is H,  $C(=0)R^{17}$ ,  $C(=0)OR^{17}$ ,  $C(=0)NR^{18}R^{19}$ ,  $S(=0)_2NR^{18}R^{19}$ ,  $S(=0)_2R^{17}$ ;  $C_1-C_6$  alkyl optionally substituted with 0-2  $R^{20a}$ ;  $C_6-C_{10}$  aryl substituted with 0-4  $R^{20b}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{20b}$ ; or
  - 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>20b</sup>;

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 $R^{20a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , F, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , aryl

substituted with 0-4  $\mathrm{R}^{20\mathrm{b}}$ , and heterocycle substituted with 0-4  $\mathrm{R}^{20\mathrm{b}}$ ;

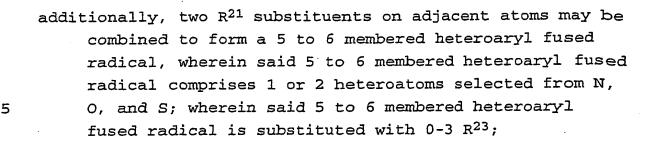
- $R^{20b}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkyl-S-;
- 10  $R^{21}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_4$  alkoxy,  $C_1$ , F, Br, I, =0,  $C_1$ ,  $C_2$ ,  $C_3$ ,  $C_4$ ,  $C_4$ ,  $C_4$ ,  $C_5$ ,  $C_5$ ,  $C_5$ ,  $C_6$ ,  $C_6$
- 15 C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>21b</sup>; and
  5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>21b</sup>;
- 20  ${\rm R^{21a},~at~each~occurrence,~is~independently~selected~from} \\ {\rm H,~C_{1}-C_{6}~alkyl,~OR^{14},~Cl,~F,~Br,~I,~=0,~CN,~NO_{2},} \\ {\rm NR^{15}R^{16},~CF_{3};}$
- phenyl substituted with 0-3 R<sup>21b</sup>;

  C<sub>3</sub>-C<sub>6</sub> cycloalkyl substituted with 0-3 R<sup>21b</sup>; and

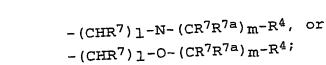
  5 to 6 membered heterocycle containing 1 to 3

  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 6 membered heterocycle
  is substituted with 0-3 R<sup>21b</sup>;
- R<sup>21b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,  $S(=0)CH_3, S(=0)_2CH_3,$   $C_1-C_6 \text{ alkyl}, C_1-C_4 \text{ alkoxy}, C_1-C_4 \text{ haloalkyl},$   $C_1-C_4 \text{ haloalkoxy}, \text{ and } C_1-C_4 \text{ haloalkyl}-S-;$

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- additionally, two  $R^{21}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{23}$ ;
- additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-4 R<sup>23</sup>;
- $R^{23}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- 20  $R^{26}$  is H;  $C_1-C_6$  alkyl substituted with 0-3  $R^{26a}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{26b}$ ; or  $C_6-C_{10}$  aryl substituted with 0-3  $R^{26b}$ ;
- 25  $R^{26a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , aryl and  $CF_3$ ; and
- $R^{26b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, and  $C_1-C_4$  haloalkoxy.
  - 2. A compound of Claim 1, wherein:
- 35 L is  $-NR^{26}C(=0)$ -,  $-C(=0)NR^{26}$ -, or  $-OC(=0)NR^{26}$ -;  $R^3$  is  $-(CHR^7)_{n}$ - $R^4$ ,



n is 0, 1 or 2;

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m is 0, 1 or 2;

1 is 1;

10 Ring C is a 3 to 8 membered carbocycle substituted with 0-4  $\rm R^{21}$ ; optionally, the carbocycle contains a heteroatom selected from -O- and -N( $\rm R^{20}$ )-;

 $\mathbb{R}^4$  is H, OH,  $\mathbb{OR}^{14a}$ ,

- 15  $C_1$ - $C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2$ - $C_6$  alkenyl substituted with 0-2  $R^{4a}$ ,  $C_2$ - $C_6$  alkynyl substituted with 0-1  $R^{4a}$ ,  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{4b}$ ,  $C_6$ - $C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or
- 5 to 6 membered heterocycle containing 1 to 4

  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 6 membered heterocycle
  is substituted with 0-3 R4b;
- 25 R<sup>4a</sup>, at each occurrence, is independently selected from H,
  OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,
  C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,
  phenyl substituted with 0-3 R<sup>4b</sup>, and
  5 to 6 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 6 membered heterocycle
  is substituted with 0-3 R<sup>4b</sup>;
  - $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

R6 is H;

R<sup>7</sup>, at each occurrence, is independently selected from H,
5 OH, F, CF<sub>3</sub>, methyl, and ethyl;

Ring B is a 7 membered lactam,

wherein the lactam is saturated, partially saturated or unsaturated;

wherein each additional lactam carbon is substituted.

with 0-2 R<sup>11</sup>; and,

optionally, the lactam contains a heteroatom selected from -0-, -S-, -S(=0)-,  $-S(=0)_2-$ , -N=, -NH-, and  $-N(R^{10})-$ ;

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R<sup>10</sup> is H, C(=0)R<sup>17</sup>, C(=0)OR<sup>17</sup>, C(=0)NR<sup>18</sup>R<sup>19</sup>,  $S(=0)_{2}NR^{18}R^{19}, S(=0)_{2}R^{17};$   $C_{1}-C_{6} \text{ alkyl optionally substituted with } 0-2 R^{10a};$   $C_{6}-C_{10} \text{ aryl substituted with } 0-4 R^{10b};$ 

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>10b</sup>; or 5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>10b</sup>;

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 $R^{10a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , phenyl substituted with 0-4  $R^{10b}$ ; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{10b}$ ;

 $R^{10b}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;

R11, at each occurrence, is independently selected from H, C1-C4 alkoxy, Cl, F, Br, I, =0, CN, NO2, NR18R19, C(=0)R17, C(=0)OR17, C(=0)NR18R19, S(=0)2NR18R19, CF3; C1-C6 alkyl optionally substituted with 0-3 R11a; C6-C10 aryl substituted with 0-3 R11b; C3-C10 carbocycle substituted with 0-3 R11b; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R11b;

 $R^{11a}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;

R11b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, and C<sub>1</sub>-C<sub>4</sub> haloalkoxy;

additionally, two R<sup>11</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-2 R<sup>13</sup>;

25 additionally, two R<sup>11</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heteroaryl fused radical, wherein said 5 to 6 membered heteroaryl fused radical comprises 1 or 2 heteroatoms selected from N, 0, and S; wherein said 5 to 6 membered heteroaryl fused radical is substituted with 0-2 R<sup>13</sup>;

additionally, two  $R^{11}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-2  $R^{13}$ ;

W is a bond,  $-CH_2-$ ,  $-CH(CH_3)-$ ,  $-CH_2CH_2-$  or  $-CH(CH_3)CH_2-$ ;

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X is a bond;

phenyl s

C<sub>3</sub>-C<sub>6</sub> cyc

5 to 6 m

5

R<sup>Xb</sup>, at each 6

OH, Cl,

phenyl substituted with 0-2 R<sup>Xb</sup>;

C<sub>3</sub>-C<sub>6</sub> cycloalkyl substituted with 0-2 R<sup>Xb</sup>; or

5 to 6 membered heterocycle substituted with 0-2 R<sup>Xb</sup>;

 $R^{\mathrm{Xb}}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

10 Y is a bond,  $-CH_2-V_-$ ,  $-V_-$ , or  $-V_-CH_2-$ ;

V is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -,

Z is H; C<sub>1</sub>-C<sub>6</sub> alkyl; C<sub>2</sub>-C<sub>4</sub> alkenyl; C<sub>2</sub>-C<sub>4</sub> alkynyl;

C<sub>1</sub>-C<sub>3</sub> alkyl substituted with 1-2 R<sup>12</sup>;

C<sub>2</sub>-C<sub>3</sub> alkenyl substituted with 1-2 R<sup>12</sup>;

C<sub>2</sub>-C<sub>3</sub> alkynyl substituted with 1-2 R<sup>12</sup>;

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>12b</sup>; or

5 to 10 membered heterocycle substituted with 0-3 R<sup>12b</sup>;

- 25 R<sup>12</sup>, at each occurrence, is independently selected from C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;
  C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and
  5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
- R12b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

 $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;

 $R^{14}$  is H, phenyl, benzyl,  $C_1-C_4$  alkyl, or  $C_2-C_4$  alkoxyalkyl;  $R^{14a}$  is H, phenyl, benzyl, or  $C_1-C_4$  alkyl;

- 10  $R^{15}$ , at each occurrence, is independently selected from H,  $C_1-C_4$  alkyl, benzyl, phenethyl,  $(C_1-C_4$  alkyl)-C(=O)-, and  $(C_1-C_4$  alkyl)-S(=O)<sub>2</sub>-;
- $R^{16}$ , at each occurrence, is independently selected from H, OH,  $C_1-C_4$  alkyl, benzyl, phenethyl,  $(C_1-C_4$  alkyl)-C(=0)-, and  $(C_1-C_4$  alkyl)- $S(=0)_2$ -;
- R<sup>17</sup> is H, methyl, ethyl, propyl, butyl, methoxymethyl, ethoxymethyl, methoxyethyl, ethoxyethyl, phenyl substituted by 0-3 R<sup>17a</sup>, or -CH<sub>2</sub>-phenyl substituted by 0-3 R<sup>17a</sup>;

 $\mathbb{R}^{17a}$  is H, methyl, methoxy, -OH, F, Cl, CF<sub>3</sub>, or OCF<sub>3</sub>;

- 25 R<sup>18</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
- R<sup>19</sup>, at each occurrence, is independently selected from H, methyl, and ethyl;

 $R^{20}$  is H or C(=0)OR<sup>17</sup>;

 $\mathbb{R}^{26}$  is H, methyl, or ethyl.

3. A compound of Claim 2, wherein:

35

Ring C is selected from:

$$\sqrt{\frac{1}{2}}$$
,  $\sqrt{\frac{1}{2}}$ ,  $\sqrt{\frac{1}{2}}$ ,  $\sqrt{\frac{1}{2}}$ ,  $\sqrt{\frac{1}{2}}$ ,  $\sqrt{\frac{1}{2}}$ , and  $\sqrt{\frac{1}{2}}$ ,

wherein Ring C is substituted with 0-2  $R^{21}$ ; and

Ring B is selected from:

4. A compound of Claim 3, wherein:

15 L is -NHC(=O)-, -C(=O)NH-, or -OC(=O)NH-; R<sup>3</sup> is R<sup>4</sup>,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;

- 20  $R^4$  is  $C_1-C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_6$  alkenyl substituted with 0-1  $R^{4a}$ , or  $C_2-C_6$  alkynyl substituted with 0-1  $R^{4a}$ ;
- $R^{4a}$ , at each occurrence, is independently selected from 25 H, OH, F,  $NR^{15}R^{16}$ ,  $CF_3$ ,

C3-C6 carbocycle substituted with 0-3 R4b,

phenyl substituted with 0-3 R4b, and

5 to 6 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 6 membered heterocycle

is substituted with 0-3 R4b; wherein said 5 to 6

membered heterocycle is selected from pyridinyl,

pyrimidinyl, triazinyl, furanyl, thienyl,

thiazolyl, pyrrolyl, piperazinyl, piperidinyl,

pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and

tetrazolyl;

R4b, at each occurrence, is independently selected from H, OH, Cl, F, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C<sub>1</sub>-C<sub>2</sub> haloalkyl, and C<sub>1</sub>-C<sub>2</sub> haloalkoxy;

W is a bond,  $-CH_2-$ ,  $-CH(CH_3)-$ ,  $-CH_2CH_2-$  or  $-CH(CH_3)CH_2-$ ;

20

X is a bond, phenyl,  $C_3-C_6$  cycloalkyl, or 5 to 6 membered heterocycle;

Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -,

Z is H; C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>4</sub> alkenyl, C<sub>2</sub>-C<sub>4</sub> alkynyl,

C<sub>1</sub>-C<sub>3</sub> alkyl substituted with 1-2 R<sup>12</sup>;

C<sub>2</sub>-C<sub>3</sub> alkenyl substituted with 1-2 R<sup>12</sup>;

C<sub>2</sub>-C<sub>3</sub> alkynyl substituted with 1-2 R<sup>12</sup>;

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>12b</sup>; or

5 to 6 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 6 membered heterocycle

is substituted with 0-3 R<sup>12b</sup>; wherein said 5 to 6

membered heterocycle is selected from pyridinyl,

pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and tetrazolyl;

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- R12, at each occurrence, is independently selected from C6-C10 aryl substituted with 0-4 R12b;
  C3-C6 carbocycle substituted with 0-3 R12b; and
  5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle is
  substituted with 0-3 R12b; wherein said 5 to 6
  membered heterocycle is selected from pyridinyl,
  pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl,
  pyrrolyl, piperazinyl, piperidinyl, pyrazolyl,
  imidazolyl, oxazolyl, isoxazolyl, and tetrazolyl;
- R<sup>12b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C<sub>1</sub>-C<sub>2</sub> haloalkyl, and C<sub>1</sub>-C<sub>2</sub> haloalkoxy;
- R<sup>13</sup>, at each occurrence, is independently selected from

  H, OH, methyl, ethyl, propyl, butyl, methoxy, ethoxy,

  Cl, F, Br, CN, NR<sup>15</sup>R<sup>16</sup>, and CF<sub>3</sub>;
  - R14 is H, phenyl, benzyl, methyl, ethyl, propyl, or butyl;
- 30 R<sup>15</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl;
- R<sup>16</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl,

  phenethyl, methyl-C(=0)-, ethyl-C(=0)-,
  methyl-S(=0)<sub>2</sub>-, ethyl-S(=0)<sub>2</sub>-, and propyl-S(=0)<sub>2</sub>-;

- R18, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
- 5 R<sup>19</sup>, at each occurrence, is independently selected from H, methyl, and ethyl;

R<sup>20</sup> is H.

10 5. A compound of Claim 3, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $\mathbb{R}^3$  is  $-\mathrm{CH}_3$ ,  $-\mathrm{CH}_2\mathrm{CH}_3$ ,  $-\mathrm{CH}_2\mathrm{CH}_2\mathrm{CH}_3$ ,  $-\mathrm{CH}_2\mathrm{CH}_2\mathrm{CH}_3$ 

- 15 -CH<sub>2</sub>CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, -CH<sub>2</sub>(CH<sub>3</sub>)<sub>2</sub>, -CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>, -CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>,
- $-\text{CH}_2\text{C}(\text{CH}_3)_3$ ,  $-\text{CF}_3$ ,  $-\text{CH}_2\text{CF}_3$ ,  $-\text{CH}_2\text{CF}_3$ ,  $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CF}_3$ ,
  - $-CH(OH)CH_2CH(CH_3)_2$ ,  $-CH(OH)CH(CH_3)_2$ ,  $-CH(NH_2)CH_2CH(CH_3)_2$ ,
  - $-CH_2CH_2OCH_3$ ,  $-CH_2OCH_2CH_3$ ,  $-CF_2CH_2CH$  ( $CH_3$ ) 2,
  - $-\mathrm{CH}\left(\mathrm{NHCH_3}\right)\mathrm{CH_2CH}\left(\mathrm{CH_3}\right){}_2, \quad -\mathrm{CH}\left(\mathrm{NHSO_2CH_2CH_2CH_3}\right)\mathrm{CH_2CH}\left(\mathrm{CH_3}\right){}_2,$
- 20 cyclohexyl-, cyclopentyl-, cyclopropyl-CH2-,
  - $cyclobutyl-CH_2-$ ,  $cyclopentyl-CH_2-$ ,  $cyclohexyl-CH_2-$ ,
  - cyclopropyl-CH2CH2-, cyclobutyl-CH2CH2-,
  - cyclopentyl- $CH_2CH_2-$ , cyclohexyl-CH(OH)-,
  - cyclohexyl- $CH_2CH_2-$ ,  $1-NH_2$ -cyclopentyl, phenyl- $CH_2-$ ,
- 25  $(2-F-phenyl)CH_2-, (3-F-phenyl)CH_2-, (4-F-phenyl)CH_2-,$ 
  - $(2-Cl-phenyl)CH_2-$ ,  $(3-Cl-phenyl)CH_2-$ ,  $(4-Cl-phenyl)CH_2-$ ,
    - $(2,3-diF-phenyl)CH_2-, (2,4-diF-phenyl)CH_2-,$
    - $(2,5-diF-phenyl)CH_2-, (2,6-diF-phenyl)CH_2-,$
    - $(3,4-diF-phenyl)CH_2-, (3,5-diF-phenyl)CH_2-,$
- 30 (2,3-dicl-phenyl)CH<sub>2</sub>-, (2,4-dicl-phenyl)CH<sub>2</sub>-,
  - $(2,5-diCl-phenyl)CH_2-, (2,6-diCl-phenyl)CH_2-,$
  - $(3,4-diCl-phenyl)CH_2-, (3,5-diCl-phenyl)CH_2-,$
  - $(3-F-4-Cl-phenyl)CH_2-$ ,  $(3-F-5-Cl-phenyl)CH_2-$ ,
  - $(3-Cl-4-F-phenyl)CH_2-$ , phenyl- $CH_2CH_2-$ ,
- 35  $(2-F-phenyl)CH_2CH_2-$ ,  $(3-F-phenyl)CH_2CH_2-$ ,
  - $(4-F-phenyl)CH_2CH_2-$ ,  $(2-Cl-phenyl)CH_2CH_2-$ ,
  - (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,

(2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
4-piperidinyl-CH<sub>2</sub>CH<sub>2</sub>-, phenyl-CH<sub>2</sub>CH<sub>2</sub>CF<sub>2</sub>-,
phenyl-CH<sub>2</sub>CH(OH)-, imidazolyl-CH<sub>2</sub>CH(OH)-, or

Ring C is selected from:

$$\sqrt{\frac{1}{2}}$$
,  $\sqrt{\frac{1}{2}}$ ,  $\sqrt{\frac{1}{2}}$ ,  $\sqrt{\frac{1}{2}}$ ,  $\sqrt{\frac{1}{2}}$ , and  $\sqrt{\frac{1}{2}}$ ,

Ring B is selected from:

wherein each benzo fused ring is substituted with 0-1 R13;

25 W is a bond or -CH<sub>2</sub>-;

x is a bond;

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-, or  $-N(CH_3)$ -,

10 Z is phenyl, 2-F-phenyl, 3-F-phenyl, 4-F-phenyl, 2-Clphenyl, 3-Cl-phenyl, 4-Cl-phenyl, 2,3-dif-phenyl, 2,4-diF-phenyl, 2,5-diF-phenyl, 2,6-diF-phenyl, 3,4-diF-phenyl, 3,5-diF-phenyl, 2,3-diCl-phenyl, 2,4-diCl-phenyl, 2,5-diCl-phenyl, 2,6-diCl-phenyl, 15 3,4-diCl-phenyl, 3,5-diCl-phenyl, 3-F-4-Cl-phenyl, 3-F-5-Cl-phenyl, 3-Cl-4-F-phenyl, 2-MeO-phenyl, 3-MeO-phenyl, 4-MeO-phenyl, 2-Me-phenyl, 3-Me-phenyl, 4-Me-phenyl, 2-MeS-phenyl, 3-MeS-phenyl, 4-MeS-phenyl, 2-CF<sub>3</sub>O-phenyl, 3-CF<sub>3</sub>O-phenyl, 4-CF<sub>3</sub>O-phenyl, furanyl, 20 thienyl, pyridyl, 2-Me-pyridyl, 3-Me-pyridyl, 4-Me-pyridyl, 1-imidazolyl, oxazolyl, isoxazolyl, 1-benzimidazolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, morpholino, N-piperinyl, phenyl- $CH_2$ -, (2-F-phenyl) $CH_2$ -, (3-F-phenyl) $CH_2$ -, 25  $(4-F-phenyl)CH_2-$ ,  $(2-Cl-phenyl)CH_2-$ ,  $(3-Cl-phenyl)CH_2$ ,  $(4-Cl-phenyl)CH_2-, (2,3-diF-phenyl)CH_2-,$  $(2,4-diF-phenyl)CH_2-, (2,5-diF-phenyl)CH_2-,$  $(2,6-diF-phenyl)CH_2-, (3,4-diF-phenyl)CH_2-,$ (3,5-diF-phenyl)CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>-,30  $(2,4-diCl-phenyl)CH_2-, (2,5-diCl-phenyl)CH_2-,$ 

 $\begin{array}{lll} (2,6-\text{dicl-phenyl})\,\text{CH}_2-, & (3,4-\text{dicl-phenyl})\,\text{CH}_2-, \\ (3,5-\text{dicl-phenyl})\,\text{CH}_2-, & (3-\text{F}-4-\text{Cl-phenyl})\,\text{CH}_2-, \\ (3-\text{F}-5-\text{Cl-phenyl})\,\text{CH}_2-, & (3-\text{Cl}-4-\text{F}-\text{phenyl})\,\text{CH}_2-, \end{array}$ 

WO 01/74783 PCT/US01/10667

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(2-MeO-phenyl)CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>-,
                (4-MeO-phenyl)CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>-,
                (3-Me-phenyl)CH_2-, (4-Me-phenyl)CH_2-,
                (2-MeS-phenyl)CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>-,
 5
                4-MeS-phenyl)CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>-,
                (3-CF_3O-phenyl)CH_2-, (4-CF_3O-phenyl)CH_2-,
                (furanyl)CH2-, (thienyl)CH2-, (pyridyl)CH2-,
                (2-Me-pyridyl)CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>-,
                (4-Me-pyridyl)CH<sub>2</sub>-, (1-imidazolyl)CH<sub>2</sub>-,
10
                (oxazolyl)CH<sub>2</sub>-, (isoxazolyl)CH<sub>2</sub>-,
                (1-benzimidazolyl)CH2-, (cyclopropyl)CH2-,
                (cyclobutyl) CH2-, (cyclopentyl) CH2-,
                (cyclohexyl) CH2-, (morpholino) CH2-,
                (N-pipridinyl)CH2-, phenyl-CH2CH2-,
                (phenyl)<sub>2</sub>CHCH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
15
                (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
20
                (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, <math>(3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
25
                (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, <math>(3-Cl-4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (4-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (2-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
30
                (4-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (3-CF_3O-phenyl)CH_2CH_2-, (4-CF_3O-phenyl)CH_2CH_2-,
                (furanyl)CH2CH2-,(thienyl)CH2CH2-, (pyridyl)CH2CH2-,
                (2-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
                (4-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (imidazolyl)CH<sub>2</sub>CH<sub>2</sub>-,
35
                (oxazolyl) CH<sub>2</sub>CH<sub>2</sub>-, (isoxazolyl) CH<sub>2</sub>CH<sub>2</sub>-,
                (benzimidazolyl) CH2CH2-, (cyclopropyl) CH2CH2-,
                (cyclobutyl) CH2CH2-, (cyclopentyl) CH2CH2-,
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(cyclohexyl)CH2CH2-, (morpholino)CH2CH2-, or (N-pipridinyl)CH2CH2-;

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\mathbb{R}^{10} is H, methyl, ethyl, phenyl, benzyl, phenethyl,
      4-F-phenyl, (4-F-phenyl)CH_2-, (4-F-phenyl)CH_2CH_2-,
5
      4-Cl-phenyl, (4-Cl-phenyl)CH_2-, (4-Cl-phenyl)CH_2CH_2-,
      4-CH_3-phenyl, (4-CH_3-phenyl)CH_2-, (4-CH_3-phenyl)CH_2CH_2-,
      4-CF_3-phenyl, (4-CF_3-phenyl)CH_2-, or
       (4-CF_3-phenyl)CH_2CH_2-;
```

10

R11, at each occurrence, is independently selected from H, =0, methyl, ethyl, phenyl, benzyl, phenethyl,

4-F-phenyl,  $(4-F-phenyl)CH_2-$ ,  $(4-F-phenyl)CH_2CH_2-$ ,

3-F-phenyl,  $(3-F-phenyl)CH_2-$ ,  $(3-F-phenyl)CH_2CH_2-$ ,

2-F-phenyl, (2-F-phenyl) $CH_2-$ , (2-F-phenyl) $CH_2CH_2-$ , 15

4-Cl-phenyl,  $(4-Cl-phenyl)CH_2-$ ,  $(4-Cl-phenyl)CH_2CH_2-$ ,

3-Cl-phenyl,  $(3-Cl-phenyl)CH_2-$ ,  $(3-Cl-phenyl)CH_2CH_2-$ ,

4-CH<sub>3</sub>-phenyl,  $(4-CH_3-phenyl)CH_2-$ ,  $(4-CH_3-phenyl)CH_2CH_2-$ ,

 $3-CH_3-phenyl$ ,  $(3-CH_3-phenyl)CH_2-$ ,  $(3-CH_3-phenyl)CH_2CH_2-$ ,

 $4-CF_3$ -phenyl,  $(4-CF_3$ -phenyl) $CH_2$ -,  $(4-CF_3$ -phenyl) $CH_2CH_2$ -, cyclopentyl, pyrid-2-yl, pyrid-3-yl, and pyrid-4-yl;

 $\mathbb{R}^{13}$ , at each occurrence, is independently selected from H, F, Cl, OH,  $-CH_3$ ,  $-CH_2CH_3$ ,  $-OCH_3$ , and  $-CF_3$ ; and

25

20

 $R^{20}$  is H.

### 6. A compound of Formula (I):

$$R^3-L$$
 $C$ 
 $R^6$ 
 $N$ 
 $B$ 
 $W-X-Y-Z$ 
 $(I)$ 

or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

10

5

L is 
$$-NR^{26}C(=0)-$$
,  $-C(=0)NR^{26}-$ ,  $-NR^{26}C(=0)0-$ ,  $-OC(=0)NR^{26}$ , or  $-NR^{26}C(=0)NR^{26}-$ ;

R<sup>3</sup> is 
$$-(CR^{7}R^{7a})_{n}-R^{4}$$
,  
 $-(CR^{7}R^{7a})_{1}-S-R^{4}$ ,  
 $-(CR^{7}R^{7a})_{1}-O-R^{4}$ ;  
 $-(CR^{7}R^{7a})_{1}-N(R^{7b})_{-R^{4}}$ ,  
 $-(CR^{7}R^{7a})_{1}-S(=0)_{-R^{4}}$ , or  
 $-(CR^{7}R^{7a})_{1}-S(=0)_{2}-R^{4}$ ;

20

30

n is 0, 1 or 2;

·1 is 1 or 2;

25  $R^4$  is H,

 $C_1-C_8$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_8$  alkenyl substituted with 0-3  $R^{4a}$ ,

 $C_2-C_8$  alkynyl substituted with 0-3  $R^{4a}$ ,

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

 $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;

15

R4a, at each occurrence, is independently selected from H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;

10  $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,

 $C_1$ - $C_4$  haloalkoxy, and  $C_1$ - $C_4$  haloalkyl-S-;

Ring C is a 3-8 membered carbocycle;
wherein said 3-8 membered carbocycle is saturated or
partially unsaturated;

wherein said 3-8 membered carbocycle is substituted with 0-4 R<sup>21</sup>; and optionally, the carbocycle contains a heteroatom selected from -0- and -N(R<sup>20</sup>)-;

25 additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-4 R<sup>23</sup>;

additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heteroaryl fused radical, wherein said 5 to 6 membered heteroaryl fused radical comprises 1 or 2 heteroatoms selected from N, 0, and S; wherein said 5 to 6 membered heteroaryl fused radical is substituted with 0-3 R<sup>23</sup>;

additionally, two  $R^{21}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{23}$ ;

- 5 R<sup>21</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, NR<sup>15</sup>R<sup>16</sup>, OR<sup>14a</sup>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, alkynyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>3</sub>-C<sub>6</sub> carbocycle, phenyl, and a 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur;
- 15 R<sup>6</sup> is H, methyl, or ethyl;

 $\mathbb{R}^7$ , at each occurrence, is independently H or  $C_1$ - $C_4$  alkyl;

 $R^{7a}$ , at each occurrence, is independently H or  $C_1$ - $C_4$  alkyl;

20  $R^{7b}$  is H or  $C_1-C_4$  alkyl;

Ring B is selected from:

$$R^{13}$$
 $R^{13}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{13}$ 

R<sup>10</sup> is H, C(=0)R<sup>17</sup>, C(=0)OR<sup>17</sup>, C(=0)NR<sup>18</sup>R<sup>19</sup>,

S(=0)<sub>2</sub>NR<sup>18</sup>R<sup>19</sup>, S(=0)<sub>2</sub>R<sup>17</sup>;

C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 0-3 R<sup>10a</sup>;

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>10b</sup>;

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>10b</sup>; or

5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>10b</sup>;

 $R^{10a}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , CF<sub>3</sub>, or aryl substituted with 0-4  $R^{10b}$ ;

 $R^{10b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkyl-S-;

R11, at each occurrence, is independently selected from H, C1-C4 alkoxy, Cl, F, Br, I, =0, CN, NO2, NR18R19, C(=0)R17, C(=0)OR17, C(=0)NR18R19, S(=0)2NR18R19, CF3;

C1-C6 alkyl optionally substituted with 0-3 R11a; C6-C10 aryl substituted with 0-3 R11b; C3-C10 carbocycle substituted with 0-3 R11b; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R11b;

R<sup>11a</sup>, at each occurrence, is independently selected from

H,  $C_1-C_6$  alkyl,  $OR^{14}$ , Cl, F, Br, I, =0, CN,  $NO_2$ ,  $NR^{15}R^{\bar{1}6}$ ,  $CF_3$ ;

phenyl substituted with 0-3  $R^{11b}$ ;  $C_3-C_6$  cycloalkyl substituted with 0-3  $R^{11b}$ ; and

- 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R<sup>11b</sup>;
- 10  $R^{11b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- 15 W is a bond or  $-(CH_2)_{p}$ -;

p is 1 or 2;

- 25  $R^{Xb}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_3$  haloalkyl,  $C_1-C_3$  haloalkoxy, and  $C_1-C_3$  halothicalkoxy;
- 30 Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)$ <sub>2</sub>-,  $-S(=0)NR^{19b}$ -, -C(=0)O-, or -OC(=0)-;
- 35 Z is H;  $C_{1}-C_{8} \text{ alkyl substituted with } 0-3 \text{ R}^{12a};$   $C_{2}-C_{6} \text{ alkenyl substituted with } 0-3 \text{ R}^{12a};$

C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3 R<sup>12a</sup>;
C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;
C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; or
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

- R12a, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=O)CH<sub>3</sub>, S(=O)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;
- 20  $R^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
  - $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- 30  ${\rm R}^{14} \mbox{ is H, phenyl, benzyl, $C_1$-$C_6 alkyl, $C_2$-$C_6 alkoxyalkyl, or $C_3$-$C_6 cycloalkyl; }$ 
  - $R^{14a}$  is H, phenyl, benzyl, or  $C_1-C_4$  alkyl;

- $R^{15}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=O)-, and  $(C_1$ - $C_6$  alkyl)-S(=O)<sub>2</sub>-;
- 5 R<sup>16</sup>, at each occurrence, is independently selected from H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=0)<sub>2</sub>-;
- R<sup>17</sup> is H, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkoxyalkyl, 10 aryl substituted by 0-4 R<sup>17a</sup>, or -CH<sub>2</sub>-aryl substituted by 0-4 R<sup>17a</sup>;
- R<sup>17a</sup> is H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, butoxy, -OH, F, Cl, Br, I, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, S(O)CH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, or C<sub>1</sub>-C<sub>4</sub> haloalkyl;
  - $R^{18}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- R<sup>19</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
- 25 R<sup>19b</sup>, at each occurrence, is independently is H or C<sub>1</sub>-C<sub>4</sub> alkyl;
  - $R^{20}$  is H,  $C_1-C_4$  alkyl, or  $C(=0)OR^{17}$ ;
- 30  $R^{23}$ , at each occurrence, is independently selected from H, OH,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ; and
  - $R^{26}$  is H or  $C_1-C_4$  alkyl.
    - 7. A compound of Claim 6 of Formula (Ia):

or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

L is  $-NR^{26}C(=0)$ -,  $-C(=0)NR^{26}$ -,  $-NR^{26}C(=0)$ 0-,  $-OC(=0)NR^{26}$ , or  $-NR^{26}C(=0)NR^{26}$ -;

10 
$$R^3$$
 is  $-(CHR^7)_{n}-R^4$ ,  
 $-(CHR^7)_{1}-S-R^4$ ,  
 $-(CHR^7)_{1}-O-R^4$ ;  
 $-(CR^7R^{7a})_{1}-N(R^{7b})_{-R^4}$ ,  
 $-(CR^7R^{7a})_{1}-S(=0)_{-R^4}$ , or  
 $-(CR^7R^{7a})_{1}-S(=0)_{2}-R^4$ ;

n is 0, 1 or 2;

1 is 1 or 2;

20

R4 is H,

 $C_1-C_8$  alkyl substituted with 0-3  $R^{4a}$ ,

 $C_2$ - $C_8$  alkenyl substituted with 0-3  $R^{4a}$ ,

 $C_2$ - $C_8$  alkynyl substituted with 0-3  $R^{4a}$ ,

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

 $C_6-C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R4b;

 ${
m R}^{4a}$ , at each occurrence, is independently selected from H, OH, F, Cl, Br, I,  ${
m NR}^{15}{
m R}^{16}$ ,  ${
m CF}_3$ ,

 $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

10

20



C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>4b</sup>;

- $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- Ring C is a 3-8 membered carbocycle;

  wherein said 3-8 membered carbocycle is saturated or

  partially unsaturated;

  wherein said 3-8 membered carbocycle is substituted

  with 0-4 R<sup>21</sup>;

  optionally, the carbocycle contains a heteroatom

  selected from -O-, and -N(R<sup>20</sup>)-;
  - additionally, two R<sup>21</sup> substituents on adjacent atoms may be combined to form a benzo fused radical; wherein said benzo fused radical is substituted with 0-4 R<sup>23</sup>;
- 25 additionally, two  $R^{21}$  substituents on the same or adjacent carbon atoms may be combined to form a  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{23}$ ;
- R<sup>21</sup>, at each occurrence, is independently selected from H,

  OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,

  S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, NR<sup>15</sup>R<sup>16</sup>, OR<sup>14a</sup>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>6</sub>

  alkenyl, alkynyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,

  C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-,

  C<sub>3</sub>-C<sub>6</sub> carbocycle, phenyl, and a
- 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur;

 $\mathbb{R}^7$ , at each occurrence, is independently H, methyl, or ethyl;

5 R<sup>7b</sup> is H, methyl, or ethyl;

Ring B is selected from:

10

R11, at each occurrence, is independently selected from H, C<sub>1</sub>-C<sub>4</sub> alkoxy, Cl, F, Br, I, =0, CN, NO<sub>2</sub>, NR<sup>18</sup>R<sup>19</sup>, C(=0)R<sup>17</sup>, C(=0)OR<sup>17</sup>, C(=0)NR<sup>18</sup>R<sup>19</sup>, S(=0)<sub>2</sub>NR<sup>18</sup>R<sup>19</sup>, CF<sub>3</sub>; C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 0-3 R<sup>11a</sup>; C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>11b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>11b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>11b</sup>;

R11a, at each occurrence, is independently selected from H, C1-C6 alkyl, OR14, Cl, F, Br, I, =0, CN, NO2, NR15R16, CF3;

phenyl substituted with 0-3 R11b;
C3-C6 cycloalkyl substituted with 0-3 R11b; and 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 6 membered heterocycle is substituted with  $0-3\ R^{11b}$ ;

- R<sup>11b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 10 W is a bond or  $-(CH_2)_p$ -;

p is 1 or 2;

- X is a bond;

  15 phenyl substituted with 0-2 R<sup>Xb</sup>;

  C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-2 R<sup>Xb</sup>; or

  5 to 6 membered heterocycle substituted with 0-2 R<sup>Xb</sup>;
- $R^{\mathrm{Xb}}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>3</sub> alkoxy, C<sub>1</sub>-C<sub>3</sub> haloalkyl, C<sub>1</sub>-C<sub>3</sub> haloalkoxy, and C<sub>1</sub>-C<sub>3</sub> halothioalkoxy;
- Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-,  $-S(=0)_2$ -,  $-N(R^{19})$ 
  25 ,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)_2$ -,  $-S(=0)_2NR^{19b}$ -,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)O-, or -OC(=0)-;

Z is H;

- C1-C8 alkyl substituted with 0-3 R<sup>12a</sup>;
  C2-C6 alkenyl substituted with 0-3 R<sup>12a</sup>;
  C2-C6 alkynyl substituted with 0-3 R<sup>12a</sup>;
  C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;
  C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or
  5 to 10 membered heterocycle containing 1 to 4
- 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{12b}$ ;

- R12a, at each occurrence, is independently selected from
  H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=0)NR<sup>15</sup>R<sup>16</sup>,

  CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,

  C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,

  C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-,

  C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;

  C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and

  5 to 10 membered heterocycle containing 1 to 4

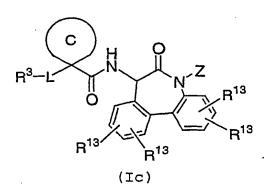
  heteroatoms selected from nitrogen, oxygen, and

  sulphur, wherein said 5 to 10 membered heterocycle
- 15  $R^{12b}, \text{ at each occurrence, is independently selected from } H, \text{ OH, Cl, F, Br, I, CN, NO}_2, \text{ NR}^{15}R^{16}, \text{ CF}_3, \text{ acetyl,} \\ \text{SCH}_3, \text{ S(=O)CH}_3, \text{ S(=O)}_2\text{CH}_3, \\ \text{C}_1\text{-C}_6 \text{ alkyl, C}_1\text{-C}_4 \text{ alkoxy, C}_1\text{-C}_4 \text{ haloalkyl,} \\ \text{C}_1\text{-C}_4 \text{ haloalkoxy, and C}_1\text{-C}_4 \text{ haloalkyl-S-;}$

is substituted with 0-3  $R^{12b}$ ;

- $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- 25  ${\rm R}^{14} \mbox{ is H, phenyl, benzyl, $C_1$-$C_6 alkyl, $C_2$-$C_6 alkoxyalkyl, or $C_3$-$C_6 cycloalkyl; }$ 
  - $R^{14a}$  is H, phenyl, benzyl, or  $C_1$ - $C_4$  alkyl;
  - $R^{15}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
  - 35 R<sup>16</sup>, at each occurrence, is independently selected from H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>6</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>6</sub> alkyl)-S(=0)<sub>2</sub>-;

- $R^{17}$  is H,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, aryl substituted by 0-4  $R^{17a}$ , or -CH<sub>2</sub>-aryl substituted by 0-4  $R^{17a}$ ;
- R<sup>17a</sup> is H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, butoxy, -OH, F, Cl, Br, I, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, S(O)CH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, or C<sub>1</sub>-C<sub>4</sub> haloalkyl;
- 10  $R^{18}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- R<sup>19</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, phenyl, benzyl, phenethyl;
  - $R^{20}$  is H,  $C_1-C_4$  alkyl, or  $C(=0)OR^{17}$ ;
- 20  $R^{23}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ; and
  - $R^{26}$  is H or  $C_1-C_4$  alkyl.
    - 8. A compound of Claim 7 of Formula (Ic):



or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $R^3$  is  $-(CH_2)_n-R^4$ ,  $-(CH_2)_1-S-R^4$ ,  $-(CH_2)_1-O-R^4$ , or  $-(CH_2)_1-N(R^{7p})-R^4$ ;

n is 0, 1 or 2;

10 l is 1 or 2;

R4 is C<sub>1</sub>-C<sub>8</sub> alkyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>8</sub> alkenyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>8</sub> alkynyl substituted with 0-3 R<sup>4a</sup>,

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, or

5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle

is substituted with 0-3 R<sup>4b</sup>;

 $R^{4a}$ , at each occurrence, is independently selected from H, OH, F, Cl, Br, I,  $NR^{15}R^{16}$ ,  $CF_3$ ,  $C_3-C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>4b</sup>;

 $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>,  $NR^{15}R^{16}$ , CF<sub>3</sub>, acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;

 $R^{7b}$  is H, methyl, or ethyl;

Ring C is a 3-8 membered carbocycle;
wherein said 3-8 membered carbocycle is saturated or
partially unsaturated;

- wherein said 3-8 membered carbocycle is substituted with 0-3 R<sup>21</sup>;
  - optionally, the carbocycle contains a heteroatom selected from -0-, and  $-N(R^{20})-$ ;
- 10  $R^{21}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0) CH<sub>3</sub>, S(=0) 2CH<sub>3</sub>,  $NR^{15}R^{16}$ ,  $OR^{1/4a}$ ,  $C_1$ -C<sub>4</sub> alkyl,  $C_2$ -C<sub>4</sub> alkenyl,  $C_2$ -C<sub>4</sub> alkynyl,  $C_1$ -C<sub>4</sub> alkoxy,  $C_1$ -C<sub>4</sub> haloalkyl,  $C_1$ -C<sub>4</sub> haloalkoxy, and  $C_1$ -C<sub>4</sub> haloalkyl-S-;

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

X is a bond;

phenyl substituted with 0-2  $R^{Xb}$ ;  $C_3-C_6$  cycloalkyl substituted with 0-2  $R^{Xb}$ ; or 5 to 6 membered heterocycle substituted with 0-2  $R^{Xb}$ ;

- $R^{Xb}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;
- Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-,  $-S(=0)_2$ -,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)_2$ -,  $-S(=0)_2NR^{19b}$ -,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)O-, or -OC(=0)-;
- Z is H;  $C_{1}-C_{8} \text{ alkyl substituted with } 0-3 \text{ R}^{12a};$   $C_{2}-C_{6} \text{ alkenyl substituted with } 0-3 \text{ R}^{12a};$   $C_{2}-C_{6} \text{ alkynyl substituted with } 0-3 \text{ R}^{12a};$   $C_{6}-C_{10} \text{ aryl substituted with } 0-4 \text{ R}^{12b};$

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C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; or
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

- R12a, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=O)CH<sub>3</sub>, S(=O)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>; C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;
- R12b, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 25  $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
  - $R^{14a}$  is H, phenyl, benzyl, or  $C_1-C_4$  alkyl;
- 30  $R^{15}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl, benzyl, phenethyl,  $(C_1-C_4$  alkyl)-C(=0)-, and  $(C_1-C_4$  alkyl)-S(=0)<sub>2</sub>-;
- 35 R<sup>16</sup>, at each occurrence, is independently selected from H, OH, C<sub>1</sub>-C<sub>6</sub> alkyl, benzyl, phenethyl, (C<sub>1</sub>-C<sub>4</sub> alkyl)-C(=0)-, and (C<sub>1</sub>-C<sub>4</sub> alkyl)-S(=0)<sub>2</sub>-; and

 $\mathbb{R}^{20}$  is H or  $\mathbb{C}_1$ - $\mathbb{C}_4$  alkyl.

9. A compound of Claim 8, wherein:

- 10  $R^4$  is  $C_1$ - $C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2$ - $C_6$  alkenyl substituted with 0-3  $R^{4a}$ ,  $C_2$ - $C_6$  alkynyl substituted with 0-3  $R^{4a}$ ,  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{4b}$ , phenyl substituted with 0-3  $R^{4b}$ , or
- 5 to 6 membered heterocycle containing 1 to 3
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 6 membered heterocycle
  is substituted with 0-3 R4b;
- 20 R<sup>4a</sup>, at each occurrence, is independently selected from H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>, phenyl substituted with 0-3 R<sup>4b</sup>, and 5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R<sup>4b</sup>;
- $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
- 35 Ring C is a 3-6 membered carbocycle;

  wherein said 3-6 membered carbocycle is saturated or

  partially unsaturated;

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wherein said 3-6 membered carbocycle is substituted with 0-2  $\mathbb{R}^{21}$ ;

optionally, the carbocycle contains a heteroatom selected from -O-, and  $-N(R^{20})$ -;

R<sup>21</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, methyl, ethyl, methoxy, ethoxy, allyl, -OCF<sub>3</sub>, and -SCF<sub>3</sub>;

10 W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

X is a bond;
phenyl substituted with 0-1 RXb;
C3-C6 cycloalkyl substituted with 0-1 RXb; or
5 to 6 membered heterocycle substituted with 0-1 RXb;

 $R^{Xb}$  is selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, methoxy, ethoxy, propoxy, and  $-OCF_3$ ;

20 Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

Z is H;

C1-C8 alkyl substituted with 0-3 R<sup>12a</sup>;

C2-C6 alkenyl substituted with 0-3 R<sup>12a</sup>;

C2-C6 alkynyl substituted with 0-3 R<sup>12a</sup>;

C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;

C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or

5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

35  $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $-C(=O)NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=O)CH_3$ ,  $S(=O)_2CH_3$ ,

C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl,
C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-,
C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;
C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and
5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;

- 10 R<sup>12b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyx, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 15  $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- 20  $R^{15}$ , at each occurrence, is independently selected from H,  $C_1-C_4$  alkyl, and benzyl;
- R<sup>16</sup>, at each occurrence, is independently selected from
  H, OH, methyl, ethyl, propyl, butyl, benzyl,

  phenethyl, methyl-C(=0)-, ethyl-C(=0)-,
  methyl-S(=0)<sub>2</sub>-, ethyl-S(=0)<sub>2</sub>-, and propyl-S(=0)<sub>2</sub>-; and

 $R^{20}$  is H or  $C_1-C_4$  alkyl.

30 10. A compound of Claim 9, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;

 $R^4$  is  $C_1-C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_6$  alkenyl substituted with 0-3  $R^{4a}$ , or

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 $C_2$ - $C_6$  alkynyl substituted with 0-3  $R^{4a}$ ;

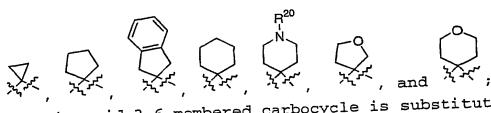
R4a, at each occurrence, is independently selected from is
H, OH, F, Cl, Br, I, NR15R16, CF3,

C3-C6 carbocycle substituted with 0-3 R4b,
phenyl substituted with 0-3 R4b, and
to 6 membered heterocycle containing 1 to 3
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 6 membered heterocycle
is substituted with 0-3 R4b; wherein said 5 to 6
membered heterocycle is selected from pyridinyl,
pyrimidinyl, triazinyl, furanyl, thienyl,
thiazolyl, pyrrolyl, piperazinyl, piperidinyl,
pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and

 $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,

20  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkoxy, and  $C_1$ - $C_4$  haloalkyl-S-;

Ring C is a 3-6 membered carbocycle selected from:



wherein said 3-6 membered carbocycle is substituted with 0-1  $\mathbb{R}^{21}$ ;

R<sup>21</sup> is selected from H, OH, Cl, F, CN, CF<sub>3</sub>, methyl, ethyl, 30 methoxy, ethoxy, allyl, and -OCF<sub>3</sub>;

W is a bond or  $-CH_2-$ ;

tetrazolyl;

X is a bond, phenyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl or 5 to 6 membered heterocycle;

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

- 5 Z is H;

  C1-C8 alkyl substituted with 0-3 R<sup>12a</sup>;

  C2-C6 alkenyl substituted with 0-3 R<sup>12a</sup>;

  C2-C6 alkynyl substituted with 0-3 R<sup>12a</sup>;

  C6-C10 aryl substituted with 0-4 R<sup>12b</sup>;

  C3-C10 carbocycle substituted with 0-4 R<sup>12b</sup>; or

  5 to 10 membered heterocycle containing 1 to 4

  heteroatoms selected from nitrogen, oxygen, and

  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
- $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;
- phenyl substituted with 0-4 R<sup>12b</sup>;

  C<sub>3</sub>-6 carbocycle substituted with 0-4 R<sup>12b</sup>; and

  5 to 6 membered heterocycle containing 1 to 4

  heteroatoms selected from nitrogen, oxygen, and

  sulphur, wherein said 5 to 6 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
- $R^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;
- R<sup>13</sup>, at each occurrence, is independently selected from

  H, OH, methyl, ethyl, propyl, butyl, methoxy, ethoxy,

  Cl, F, Br, CN, NR<sup>15</sup>R<sup>16</sup>, and CF<sub>3</sub>;

- ${
  m R}^{15},$  at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and
- $\mathbb{R}^{16}$ , at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, and 5 phenethyl; and

 $R^{20}$  is H, methyl, or ethyl.

A compound of claim 10, wherein: 11. 10

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

Ring C is selected from:

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 $R^3$  is  $-CH_3$ ,  $-CH_2CH_3$ ,  $-CH_2CH_2CH_3$ ,  $-CH_2CH_2CH_3$ ,  $-CH_2CH_2CH(CH_3)_2$ ,  $-CH_2(CH_3)_2$ ,  $-CH(CH_3)CH_2CH_3$ ,  $-CH_2CH(CH_3)_2$ ,  $-\mathrm{CH}_2\mathrm{C}\left(\mathrm{CH}_3\right)_3, \ -\mathrm{CF}_3, \ -\mathrm{CH}_2\mathrm{CF}_3, \ -\mathrm{CH}_2\mathrm{CF}_3, \ -\mathrm{CH}_2\mathrm{CH}_2\mathrm{CF}_3,$  $-\mathrm{CH}\left(\mathrm{OH}\right)\mathrm{CH}_{2}\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},\ -\mathrm{CH}\left(\mathrm{OH}\right)\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},\ -\mathrm{CH}\left(\mathrm{NH}_{2}\right)\mathrm{CH}_{2}\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},$ 20  $-\mathtt{CH}_2\mathtt{CH}_2\mathtt{OCH}_3\,,\quad -\mathtt{CH}_2\mathtt{OCH}_2\mathtt{CH}_3\,,\quad -\mathtt{CF}_2\mathtt{CH}_2\mathtt{CH}\,(\mathtt{CH}_3)_{\,2}\,,$ -CH(NHCH<sub>3</sub>)CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, -CH(NHSO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>)CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, cyclohexyl-, cyclopentyl-,  $cyclopropyl-CH_2-$ ,  $cyclobutyl-CH_2-$ ,  $cyclopentyl-CH_2-$ ,  $cyclohexyl-CH_2-$ , 25  $\verb|cyclopropyl-CH|_2CH|_2-, cyclobutyl-CH|_2CH|_2-,$ cyclopentyl- $CH_2CH_2$ -, cyclohexyl-CH(OH)-, cyclohexyl- $CH_2CH_2$ -, 1- $NH_2$ -cyclopentyl, phenyl- $CH_2$ -,

 $(2-F-phenyl)CH_2-$ ,  $(3-F-phenyl)CH_2-$ ,  $(4-F-phenyl)CH_2-$ ,  $(2-Cl-phenyl)CH_2-$ ,  $(3-Cl-phenyl)CH_2-$ ,  $(4-Cl-phenyl)CH_2-$ , 30

 $(2,3-diF-phenyl)CH_2-, (2,4-diF-phenyl)CH_2-,$ 

(2,5-diF-phenyl)CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>-,

 $(3,4-diF-phenyl)CH_2-, (3,5-diF-phenyl)CH_2-,$ 

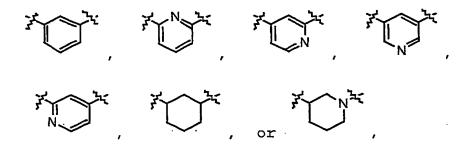
 $(2,3-diCl-phenyl)CH_2-, (2,4-diCl-phenyl)CH_2-,$ 

 $(2,5-diCl-phenyl)CH_2-, (2,6-diCl-phenyl)CH_2-,$ 35

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(3,4-diCl-phenyl)CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>-,
            (3-F-4-Cl-phenyl)CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>-,
           (3-C1-4-F-pheny1)CH_2-, pheny1-CH_2CH_2-,
           (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
 5
           (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           (2,5-dif-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-dif-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           (3, 4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3, 5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           (2,3-diCl-phenyl)CH2CH2-, (2,4-diCl-phenyl)CH2CH2-,
10
           (2,5-diCl-phenyl)CH2CH2-, (2,6-diCl-phenyl)CH2CH2-,
           (3,4-diCl-phenyl)CH2CH2-, (3,5-diCl-phenyl)CH2CH2-,
           (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
          4-piperidinyl-CH<sub>2</sub>CH<sub>2</sub>=, phenyl-CH<sub>2</sub>CH<sub>2</sub>CF<sub>2</sub>=,
           phenyl-CH<sub>2</sub>CH(OH)-, imidazolyl-CH<sub>2</sub>CH(OH)-, or
15
           phenyl-CH<sub>2</sub>OCH<sub>2</sub>-;
```

W is a bond or -CH<sub>2</sub>-;

20 X is a bond;



25

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-,  $-S(=0)_2$ -, -NH-, or  $-N(CH_3)$ -,

Z is methyl, ethyl, i-propyl, n-propyl, n-butyl, i-butyl,
s-butyl, t-butyl, allyl, phenyl, 2-F-phenyl,
3-F-phenyl, 4-F-phenyl, 2-Cl-phenyl, 3-Cl-phenyl,
4-Cl-phenyl, 2,3-diF-phenyl,
2,4-diF-phenyl, 2,5-diF-phenyl, 2,6-diF-phenyl,
3,4-diF-phenyl, 3,5-diF-phenyl, 2,3-diCl-phenyl,

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2,4-diCl-phenyl, 2,5-diCl-phenyl, 2,6-diCl-phenyl,
           3,4-diCl-phenyl, 3,5-diCl-phenyl, 3-F-4-Cl-phenyl,
           3-F-5-Cl-phenyl, 3-Cl-4-F-phenyl, 2-MeO-phenyl,
           3-MeO-phenyl, 4-MeO-phenyl, 2-Me-phenyl, 3-Me-phenyl,
           4-Me-phenyl, 2-MeS-phenyl, 3-MeS-phenyl, 4-MeS-phenyl,
5
           2-CF<sub>3</sub>O-phenyl, 3-CF<sub>3</sub>O-phenyl, 4-CF<sub>3</sub>O-phenyl, furanyl,
           thienyl, pyridyl, 2-Me-pyridyl, 3-Me-pyridyl,
           4-Me-pyridyl, 1-imidazolyl, oxazolyl, isoxazolyl,
           1-benzimidazolyl, cyclopropyl, cyclobutyl,
           cyclopentyl, cyclohexyl, morpholino, N-piperinyl,
10
           phenyl-CH_2-, (2-F-phenyl)CH_2-, (3-F-phenyl)CH_2-,
            (4-F-phenyl)CH_2-, (2-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2,
            (4-Cl-phenyl)CH_2-, (2,3-dif-phenyl)CH_2-,
            (2,4-diF-phenyl)CH_2-, (2,5-diF-phenyl)CH_2-,
            (2,6-diF-phenyl)CH_2-, (3,4-diF-phenyl)CH_2-,
15
            (3,5-diF-phenyl)CH_2-, (2,3-diCl-phenyl)CH_2-,
            (2,4-diCl-phenyl)CH_2-, (2,5-diCl-phenyl)CH_2-,
            (2,6-diCl-phenyl)CH_2-, (3,4-diCl-phenyl)CH_2-,
            (3,5-diCl-phenyl)CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>-,
            (3-F-5-Cl-phenyl)CH_2-, (3-Cl-4-F-phenyl)CH_2-,
20
            (2-MeO-phenyl)CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>-,
             (4-MeO-phenyl)CH_2-, (2-Me-phenyl)CH_2-,
             (3-Me-phenyl)CH_2-, (4-Me-phenyl)CH_2-,
             (2-MeS-phenyl)CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>-,
             4-\text{MeS-phenyl})CH<sub>2</sub>-, (2-CF<sub>3</sub>0-phenyl)CH<sub>2</sub>-,
 25
             (3-CF_3O-phenyl)CH_2-, (4-CF_3O-phenyl)CH_2-,
             (furanyl)CH_2-, (thienyl)CH_2-, (pyridyl)CH_2-,
             (2-Me-pyridyl)CH_2-, (3-Me-pyridyl)CH_2-,
             (4-Me-pyridyl)CH_2-, (1-imidazolyl)CH_2-,
             (oxazolyl)CH_2-, (isoxazolyl)CH_2-,
 30
             (1-benzimidazolyl)CH_2-, (cyclopropyl)CH_2-,
              (cyclobutyl)CH_2-, (cyclopentyl)CH_2-,
              (cyclohexyl)CH2-, (morpholino)CH2-,
              (N-pipridinyl)CH_2-, phenyl-CH_2CH_2-,
              (phenyl)<sub>2</sub>CHCH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
  35
              (3-F-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (4-F-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
              (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
```

(4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, 5 (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(2-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, 10 (3-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,(2-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-MeS-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (2-CF<sub>3</sub>O-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, $(3-CF_3O-pheny1)CH_2CH_2-$ ,  $(4-CF_3O-pheny1)CH_2CH_2-$ , (furanyl)CH2CH2-, (thienyl)CH2CH2-, (pyridyl)CH2CH2-, 15 (2-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (imidazolyl)CH<sub>2</sub>CH<sub>2</sub>-, (oxazolyl)CH2CH2-, (isoxazolyl)CH2CH2-, (benzimidazolyl) CH2CH2-, (cyclopropyl) CH2CH2-, (cyclobutyl) CH2CH2-, (cyclopentyl) CH2CH2-, 20 (cyclohexyl) CH2CH2-, (morpholino) CH2CH2-, or (N-pipridinyl) CH2CH2-;

 $R^{13}$ , at each occurrence, is independently selected from 25 H, F, Cl, OH, -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -OCH<sub>3</sub>, or -CF<sub>3</sub>.

 $\mathbb{R}^{20}$  is H, methyl, or ethyl.

12. A compound of Claim 7 of Formula (Id) or Formula
30 (Ie),

or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;  $R^{3} is -(CH_{2})n-R^{4},$   $-(CH_{2})1-S-R^{4},$ 

 $-(CH_2)_{1}-O-R^4$ , or  $-(CH_2)_{1}-N(R^{7b})-R^4$ ;

10 n is 0, 1 or 2;

1 is 1 or 2;

- 15  $R^4$  is  $C_1$ - $C_8$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2$ - $C_8$  alkenyl substituted with 0-3  $R^{4a}$ ,  $C_2$ - $C_8$  alkynyl substituted with 0-3  $R^{4a}$ ,  $C_3$ - $C_{10}$  carbocycle substituted with 0-3  $R^{4b}$ ,  $C_6$ - $C_{10}$  aryl substituted with 0-3  $R^{4b}$ , or
- 5 to 10 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>4b</sup>;
- 25 R<sup>4a</sup>, at each occurrence, is independently selected from
  H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,

  C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

  C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and

  5 to 10 membered heterocycle containing 1 to 4

  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 10 membered heterocycle
  is substituted with 0-3 R<sup>4b</sup>;
  - $R^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,



C1-C4 haloalkoxy, and C1-C4 haloalkyl-S-;

R<sup>7b</sup> is H, methyl, or ethyl;

- 5 Ring C is a 3-8 membered carbocycle; wherein said 3-8 membered carbocyclic moiety is saturated or partially saturated; wherein said 3-8 membered carbocyclic moiety is substituted with 0-3 R<sup>21</sup>; optionally, the carbocycle contains a heteroatom selected from -O- and -N(R<sup>20</sup>)-;
- R<sup>21</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,  $S(=0) CH_3, S(=0)_2 CH_3, NR^{15}R^{16}, OR^{14a}, C_1-C_4 alkyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl, C_1-C_4 alkoxy, C_1-C_4 haloalkyl, <math display="block">C_1-C_4 haloalkoxy, and C_1-C_4 haloalkyl-S-;$
- R11, at each occurrence, is independently selected from  $H, = 0, NR^{18}R^{19}, CF_3;$ 20 C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted with 0-1 R<sup>11a</sup>; phenyl substituted with 0-3 R11b; C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>11b</sup>; and 5 to 7 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and 25 sulphur, wherein said 5 to 7 membered heterocycle is substituted with 0-3 R<sup>11b</sup>; wherein said 5 to 7 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, 30 pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, homopiperidinyl, and tetrazolyl;
- $R^{11a}$ , at each occurrence, is independently selected from H,  $C_1-C_4$  alkyl,  $OR^{14}$ , F, Cl, =0,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;

 $R^{11b}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1$ - $C_2$  haloalkyl, and  $C_1$ - $C_2$  haloalkoxy;

5

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

X is a bond;

phenyl substituted with 0-2 RXb;

10  $C_3$ - $C_6$  cycloalkyl substituted with 0-2  $R^{Xb}$ ; or 5 to 6 membered heterocycle substituted with 0-2  $R^{Xb}$ ;

RXb, at each occurrence, is independently selected from H, OH, Cl, F, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=O)CH<sub>3</sub>,

15  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-,  $-S(=0)_2$ -,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)_2$ -,  $-S(=0)_2NR^{19b}$ -,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)0-, or -OC(=0)-;

Z is H;

 $C_1-C_8$  alkyl substituted with 0-3  $R^{12a}$ ;

25 C<sub>2</sub>-C<sub>6</sub> alkenyl substituted with 0-3 R<sup>12a</sup>;

 $C_2-C_6$  alkynyl substituted with 0-3  $R^{12a}$ ;

 $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;

 $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle

is substituted with 0-3  $R^{12b}$ ;

 $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $-C(=0)NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,

35

C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-,
C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4 R<sup>12b</sup>;
C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; and
5 to 10 membered heterocycle containing 1 to 4
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 10 membered heterocycle
is substituted with 0-3 R<sup>12b</sup>;

- R<sup>12b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 15  $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- $R^{14}$  is H, phenyl, benzyl,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkoxyalkyl, or  $C_3$ - $C_6$  cycloalkyl;
  - $R^{14a}$  is H, phenyl, benzyl, or  $C_1-C_4$  alkyl;
- $R^{15}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
- $R^{16}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl, benzyl, phenethyl,  $(C_1-C_4$  alkyl)-C(=0)-, and  $(C_1-C_4$  alkyl)- $S(=0)_2$ -;
  - $R^{18}$ , at each occurrence, is independently selected from H,  $C_1$ - $C_6$  alkyl, phenyl, benzyl, phenethyl,  $(C_1$ - $C_6$  alkyl)-C(=0)-, and  $(C_1$ - $C_6$  alkyl)-S(=0)<sub>2</sub>-;
  - R19, at each occurrence, is independently selected from

H, OH, methyl, ethyl, propyl, butyl, phenyl, benzyl, phenethyl; and

R20 is H or C1-C4 alkyl.

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A compound of Claim 12, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ; 10

is substituted with 0-3  $R^{4b}$ ;

 $R^4$  is  $C_1$ - $C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_6$  alkenyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_6$  alkynyl substituted with 0-3  $R^{4a}$ ,  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{4b}$ , phenyl substituted with 0-3 R4b, or 5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle

 ${\rm R}^{4a}$ , at each occurrence, is independently selected from is H, OH, F, Cl, Br, I,  $NR^{15}R^{16}$ ,  $CF_3$ ,

 $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{4b}$ ,

phenyl substituted with 0-3 R4b, or 25 5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3  $R^{4b}$ ;

30  $\mathbb{R}^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,

 $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,

 $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-; 35

Ring C is a 3-6 membered carbocycle;

30

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wherein said 3-6 membered carbocyclic moiety is saturated or partially unsaturated;

wherein said 3-6 membered carbocyclic moiety is substituted with  $0-2\ R^{21}$ ;

optionally, the carbocycle contains a heteroatom selected from -O- and -N(R<sup>20</sup>)-;

- R<sup>21</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, methyl, ethyl, methoxy, ethoxy, allyl, -OCF<sub>3</sub>, and -SCF<sub>3</sub>;
- R11, at each occurrence, is independently selected from  $H, = 0, NR^{18}R^{19}, CF_3;$  $C_1-C_4$  alkyl optionally substituted with 0-1  $R^{11a}$ ; phenyl substituted with 0-3 R11b; 15  $C_3-C_6$  carbocycle substituted with 0-3  $R^{11b}$ ; and 5 to 7 membered heterocycle containing 1 to 4heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 7 membered heterocycle is substituted with 0-3  $R^{11b}$ ; wherein said 5 to 7 20 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, homopiperidinyl, and tetrazolyl; 25
  - $R^{11a}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, phenoxy, F, Cl, =0,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;
  - $R^{11b}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

x is a bond; phenyl substituted with 0-1 RXb;  $C_3$ - $C_6$  cycloalkyl substituted with 0-1  $R^{\mathrm{Xb}}$ ; or 5 to 6 membered heterocycle substituted with 0-1 RXb; 5  ${
m R}^{
m Xb}$  is selected from H, OH, Cl, F,  ${
m NR}^{15}{
m R}^{16}$ , CF3, acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, methoxy, ethoxy, propoxy, and -OCF3; 10 Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)-$ , or  $-N(CH_2CH_3)-$ ; Z is H;  $C_1-C_8$  alkyl substituted with 0-3  $R^{12a}$ ; 15  $C_2$ - $C_6$  alkenyl substituted with 0-3  $R^{12a}$ ;  $C_2$ - $C_6$  alkynyl substituted with 0-3  $R^{12a}$ ;  $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or 5 to 10 membered heterocycle containing 1 to 4 20 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{12b}$ ;  $\mathbb{R}^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $-C(=0)NR^{15}R^{16}$ , 25  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy,  $C_1-C_4$  haloalkyl-S-,  $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ; 30  $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle

 $\mathbb{R}^{12b}$ , at each occurrence, is independently selected from

is substituted with 0-3  $R^{12b}$ ;

H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

5

- $R^{13}$ , at each occurrence, is independently selected from H, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ , and  $CF_3$ ;
- 10  $R^{14}$  is H, phenyl, benzyl,  $C_1-C_4$  alkyl, or  $C_2-C_4$  alkoxyalkyl;
  - R<sup>15</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, benzyl, and phenethyl;
- 15 R<sup>16</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, phenethyl, methyl-C(=0)-, ethyl-C(=0)-, methyl-S(=0)<sub>2</sub>-, and ethyl-S(=0)<sub>2</sub>-;
- 20 R<sup>18</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
- R19, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl;

 $R^{20}$  is H or  $C_1-C_4$  alkyl.

14. A compound of claim 13, wherein:

30

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;

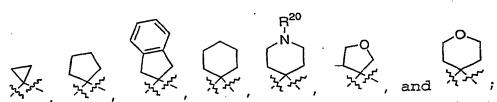
35  $R^4$  is  $C_1-C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2-C_6$  alkenyl substituted with 0-3  $R^{4a}$ , or  $C_2-C_6$  alkynyl substituted with 0-3  $R^{4a}$ ;

 $\mathbb{R}^{4a}$ , at each occurrence, is independently selected from is H, OH, F, Cl, Br, I, NR15R16, CF3,  $C_3-C_6$  carbocycle substituted with 0-3  $R^{4b}$ , phenyl substituted with 0-3 R4b, or 5 5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3  $R^{4b}$ ; wherein said 5 to 6 membered heterocycle is selected from pyridinyl, 10 pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and tetrazoly1;

15

 $\mathbb{R}^{4b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-; 20

Ring C is a 3-6 membered carbocycle selected from:



wherein said 3-6 membered carbocycle is substituted 25 with  $0-1 R^{21}$ ;

 $\mathbb{R}^{21}$  is selected from H, OH, Cl, F, CN, CF3, methyl, ethyl, methoxy, ethoxy, allyl, and  $-OCF_3$ ;

30  $\mathbb{R}^{11}$ , at each occurrence, is independently selected from  $H, = 0, NR^{18}R^{19};$  $C_1-C_4$  alkyl optionally substituted with 0-1  $\mathbb{R}^{11a}$ ; phenyl substituted with 0-3 R11b;

5	to 7 membered heterocycle containing 1 to 4
	heteroatoms selected from nitrogen, oxygen, and
	sulphur, wherein said 5 to 7 membered heterocycle
	is substituted with $0-3$ $R^{11b}$ ; wherein said 5 to 7
	membered heterocycle is selected from pyridinyl,
	pyrimidinyl, triazinyl, furanyl, thienyl,
	thiazolyl, pyrrolyl, piperazinyl, piperidinyl,
	pyrazolyl, imidazolyl, oxazolyl, isoxazolyl,
	homopiperidinyl, and tetrazolyl;

5

 $R^{11a}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, methoxy, ethoxy, propoxy, phenoxy, F, Cl, =0,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;

15

R11b, at each occurrence, is independently selected from H, OH, Cl, F, NR15R16, CF3, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2 haloalkoxy;

20

W is a bond or -CH<sub>2</sub>-;

X is a bond, phenyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl or 5 to 6 membered heterocycle;

25

Y is a bond, -C(=0)-, -O-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

Z is H:

C<sub>1</sub>-C<sub>8</sub> alkyl substituted with 0-3  $R^{12a}$ ;

C<sub>2</sub>-C<sub>6</sub> alkenyl substituted with 0-3  $R^{12a}$ ;

C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3  $R^{12a}$ ;

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-4  $R^{12b}$ ;

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4  $R^{12b}$ ;

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{12b}$ ;

- R12a, at each occurrence, is independently selected from H, OH, Cl, F, NR15R16, CF3, acetyl, SCH3, S(=0)CH3, S(=0)2CH3, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2 haloalkoxy; phenyl substituted with 0-4 R12b;
- 10 C<sub>3</sub>-6 carbocycle substituted with 0-4 R<sup>12b</sup>; or
  5 to 6 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 6 membered heterocycle
  is substituted with 0-3 R<sup>12b</sup>;
- 15  $R^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;
  - $R^{13}$ , at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, methoxy, ethoxy, Cl, F, Br, CN,  $NR^{15}R^{16}$ , and  $CF_3$ ;
  - 25  $\mathbb{R}^{14}$  is H, phenyl, benzyl, methyl, ethyl, propyl, or butyl;
    - ${\it R}^{15},$  at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and
  - R16, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, and phenethyl.
  - 35 R<sup>18</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;

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10

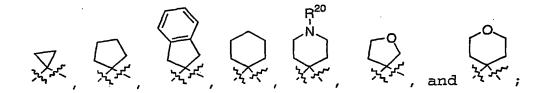
R19, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and

5  $R^{20}$  is H, methyl, or ethyl.

15. A compound of claim 14, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

Ring C is selected from:

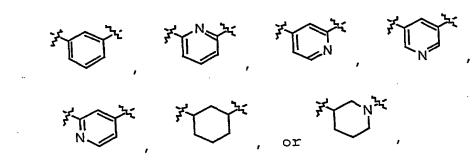


R3 is -CH3, -CH2CH3, -CH2CH2CH3, -CH2CH2CH2CH3, 15  $-CH_2CH_2CH(CH_3)_2$ ,  $-CH_2(CH_3)_2$ ,  $-CH(CH_3)CH_2CH_3$ ,  $-CH_2CH(CH_3)_2$ , -CH<sub>2</sub>C(CH<sub>3</sub>)<sub>3</sub>, -CF<sub>3</sub>, -CH<sub>2</sub>CF<sub>3</sub>, -CH<sub>2</sub>CH<sub>2</sub>CF<sub>3</sub>, -CH<sub>2</sub>CH<sub>2</sub>CF<sub>3</sub>,  $-CH(OH)CH_2CH(CH_3)_2$ ,  $-CH(OH)CH(CH_3)_2$ ,  $-CH(NH_2)CH_2CH(CH_3)_2$ , -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>3</sub>, -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub>, -CF<sub>2</sub>CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>,-CH (NHCH<sub>3</sub>) CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>, -CH (NHSO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>) CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>, 20 cyclohexyl-, cyclopentyl-, cyclopropyl-CH2-, cyclobutyl-CH2-, cyclopentyl-CH2-, cyclohexyl-CH2-, cyclopropyl-CH2CH2-, cyclobutyl-CH2CH2-, cyclopentyl-CH<sub>2</sub>CH<sub>2</sub>-, cyclohexyl-CH(OH)-, cyclohexyl-CH2CH2-, 1-NH2-cyclopentyl, phenyl-CH2-, 25  $(2-F-phenyl)CH_2-$ ,  $(3-F-phenyl)CH_2-$ ,  $(4-F-phenyl)CH_2-$ ,  $(2-Cl-phenyl)CH_2-$ ,  $(3-Cl-phenyl)CH_2-$ ,  $(4-Cl-phenyl)CH_2-$ , (2,3-diF-phenyl)CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>-,(2,5-diF-phenyl)CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>-,(3,4-diF-phenyl)CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>-,30  $(2,3-diCl-phenyl)CH_2-, (2,4-diCl-phenyl)CH_2-,$ (2,5-diCl-phenyl)CH<sub>2</sub>-, (2,6-diCl-phenyl)CH<sub>2</sub>-, (3,4-dicl-phenyl)CH<sub>2</sub>-, (3,5-dicl-phenyl)CH<sub>2</sub>-,(3-F-4-Cl-phenyl)CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>-,(3-C1-4-F-phenyl)CH<sub>2</sub>-, phenyl-CH<sub>2</sub>CH<sub>2</sub>-, 35

(2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
(3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
4-piperidinyl-CH<sub>2</sub>CH<sub>2</sub>-, phenyl-CH<sub>2</sub>CH<sub>2</sub>CF<sub>2</sub>-,
phenyl-CH<sub>2</sub>CH(OH)-, imidazolyl-CH<sub>2</sub>CH(OH)-, or

15 W is a bond or  $-CH_2-$ ;

X is a bond;



Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-, or  $-N(CH_3)$ -,

Z is methyl, ethyl, i-propyl, n-propyl, n-butyl, i-butyl, s-butyl, t-butyl, allyl, phenyl, 2-F-phenyl, 3-F-phenyl, 4-F-phenyl, 2-Cl-phenyl, 3-Cl-phenyl, 4-Cl-phenyl, 2,3-diF-phenyl,

2,4-diF-phenyl, 2,5-diF-phenyl, 2,6-diF-phenyl,
3,4-diF-phenyl, 3,5-diF-phenyl, 2,3-diCl-phenyl,
2,4-diCl-phenyl, 2,5-diCl-phenyl, 2,6-diCl-phenyl,
3,4-diCl-phenyl, 3,5-diCl-phenyl, 3-F-4-Cl-phenyl,
3-F-5-Cl-phenyl, 3-Cl-4-F-phenyl, 2-MeO-phenyl,

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3-MeO-phenyl, 4-MeO-phenyl, 2-Me-phenyl, 3-Me-phenyl,
             4-Me-phenyl, 2-MeS-phenyl, 3-MeS-phenyl, 4-MeS-phenyl,
             2-CF_3O-pheny1, 3-CF_3O-pheny1, 4-CF_3O-pheny1, furany1,
             thienyl, pyridyl, 2-Me-pyridyl, 3-Me-pyridyl,
             4-Me-pyridyl, 1-imidazolyl, oxazolyl, isoxazolyl,
 5
             1-benzimidazolyl, cyclopropyl, cyclobutyl,
             cyclopentyl, cyclohexyl, morpholino, N-piperinyl,
            phenyl-CH_2-, (2-F-phenyl)CH_2-, (3-F-phenyl)CH_2-,
             (4-F-phenyl)CH_2-, (2-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2,
10
             (4-Cl-phenyl)CH_2-, (2,3-diF-phenyl)CH_2-,
             (2,4-diF-phenyl)CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>-,
             (2,6-diF-phenyl)CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>-,
             (3,5-diF-phenyl)CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>-,
             (2,4-diCl-phenyl)CH2-, (2,5-diCl-phenyl)CH2-,
             (2,6-diCl-phenyl)CH<sub>2</sub>-, (3,4-diCl-phenyl)CH<sub>2</sub>-,
15
             (3,5-diCl-phenyl)CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>-,
             (3-F-5-Cl-phenyl)CH<sub>2</sub>-, (3-Cl-4-F-phenyl)CH<sub>2</sub>-,
             (2-MeO-phenyl)CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>-,
             (4-MeO-phenyl)CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>-,
             (3-Me-phenyl)CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>-,
20
             (2-MeS-phenyl)CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>-,
             4-\text{MeS-phenyl}) CH_2-, (2-CF_3O-phenyl) CH_2-,
             (3-CF_3O-phenyl)CH_2-, (4-CF_3O-phenyl)CH_2-,
             (furanyl)CH2-, (thienyl)CH2-, (pyridyl)CH2-,
             (2-Me-pyridyl)CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>-,
25
             (4-Me-pyridyl)CH<sub>2</sub>-, (1-imidazolyl)CH<sub>2</sub>-,
             (oxazolyl)CH2-, (isoxazolyl)CH2-,
             (1-benzimidazolyl)CH<sub>2</sub>-, (cyclopropyl)CH<sub>2</sub>-,
             (cyclobutyl)CH2-, (cyclopentyl)CH2-,
             (cyclohexyl) CH2-, (morpholino) CH2-,
30
             (N-pipridinyl)CH2-, phenyl-CH2CH2-,
             (phenyl)<sub>2</sub>CHCH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
35
             (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (2,4-diF-phenyl) CH_2CH_2-, (2,5-diF-phenyl) CH_2CH_2-,
             (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
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(3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (3-F-5-C1-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-C1-4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
5
             (2-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (4-MeO-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (3-Me-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
              (2-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (4-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
10
              (3-CF_3O-phenyl)CH_2CH_2-, (4-CF_3O-phenyl)CH_2CH_2-,
              (furanyl)CH_2CH_2-, (thienyl)CH_2CH_2-, (pyridyl)CH_2CH_2-,
              (2-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
              (4-Me-pyridyl)CH_2CH_2-, (imidazolyl)CH_2CH_2-,
              (oxazolyl)CH_2CH_2-, (isoxazolyl)CH_2CH_2-,
15
              (benzimidazolyl)CH_2CH_2-,(cyclopropyl)CH_2CH_2-,
               (cyclobutyl)CH_2CH_2-, (cyclopentyl)CH_2CH_2-,
               (cyclohexyl)CH2CH2-, (morpholino)CH2CH2-, or
               (N-pipridinyl)CH2CH2-;
 20
       \mathbb{R}^{11}, at each occurrence, is independently selected from
           H, =0, methyl, ethyl, phenyl, benzyl, phenethyl,
           4-F-phenyl, (4-F-phenyl)CH_2-, (4-F-phenyl)CH_2CH_2-,
           3-F-phenyl, (3-F-phenyl)CH<sub>2</sub>-, <math>(3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
           2-F-phenyl, (2-F-phenyl)CH_2-, (2-F-phenyl)CH_2CH_2-,
 25
           4-Cl-phenyl, (4-Cl-phenyl)CH_2-, (4-Cl-phenyl)CH_2CH_2-,
           3-Cl-phenyl, (3-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2CH_2-,
            4-CH_3-phenyl, (4-CH_3-phenyl)CH_2-, (4-CH_3-phenyl)CH_2CH_2-,
            3-CH_3-phenyl, (3-CH_3-phenyl)CH_2-, (3-CH_3-phenyl)CH_2CH_2-,
            4-\text{CF}_3-\text{phenyl}, \quad (4-\text{CF}_3-\text{phenyl})\,\text{CH}_2-, \quad (4-\text{CF}_3-\text{phenyl})\,\text{CH}_2\text{CH}_2-,
  30
            cyclopentyl, pyrid-2-yl, pyrid-3-yl, or pyrid-4-yl; and
        \mathbb{R}^{13}, at each occurrence, is independently selected from
            H, F, Cl, OH, -CH_3, -CH_2CH_3, -OCH_3, or -CF_3.
  35
                    A compound of Claim 7 of Formula (If):
             16.
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or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof, wherein:

5

10

30

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

 $R^3$  is  $-(CH_2)_{n}-R^4$ ,  $-(CH_2)_{1}-S-R^4$ ,  $-(CH_2)_{1}-O-R^4$ , or  $-(CH_2)_{1}-N(R^{7b})-R^4$ ;

n is 0, 1 or 2;

15 l is 1 or 2;

R<sup>4</sup> is C<sub>1</sub>-C<sub>8</sub> alkyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>8</sub> alkenyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>8</sub> alkynyl substituted with 0-3 R<sup>4a</sup>,

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, or

5 to 10 membered heterocycle containing 1 to 4

heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle

is substituted with 0-3 R<sup>4b</sup>;

R<sup>4a</sup>, at each occurrence, is independently selected from H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-3 R<sup>4b</sup>, C<sub>6</sub>-C<sub>10</sub> aryl substituted with 0-3 R<sup>4b</sup>, and 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle is substituted with  $0-3\ R^{4b}$ ;

- R<sup>4b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 10  $R^{7b}$  is H, methyl, or ethyl;
  - Ring C is a 3-8 membered carbocycle;

    wherein said 3-8 membered carbocyclic moiety is

    saturated or partially saturated;

    wherein said 3-8 membered carbocyclic moiety is

    substituted with 0-3 R<sup>21</sup>;
    - optionally, the carbocycle contains a heteroatom selected from -O- and -N( $\mathbb{R}^{20}$ )-;
- 20 R<sup>21</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, NR<sup>15</sup>R<sup>16</sup>, OR<sup>14a</sup>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>4</sub> alkenyl, C<sub>2</sub>-C<sub>4</sub> alkynyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;
- 25  $R^{11}$  is selected from H, =0,  $NR^{18}R^{19}$ ,  $CF_3$ ;  $C_1-C_4$  alkyl optionally substituted with 0-1  $R^{11a}$ ;
  phenyl substituted with 0-3  $R^{11b}$ ;
- 30 C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>11b</sup>; and
  5 to 7 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and
  sulphur, wherein said 5 to 7 membered heterocycle
  is substituted with 0-3 R<sup>11b</sup>; wherein said 5 to 7
  membered heterocycle is selected from pyridinyl,
- membered neterocycle is selected from pyridinyl pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl,

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pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, homopiperidinyl, and tetrazolyl;

- $R^{11a}$ , at each occurrence, is independently selected from H,  $C_1-C_4$  alkyl,  $OR^{14}$ , F, Cl, =0,  $NR^{15}R^{16}$ ,  $CF_3$ , or phenyl substituted with 0-3  $R^{11b}$ ;
- R<sup>11b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C<sub>1</sub>-C<sub>2</sub> haloalkyl, and C<sub>1</sub>-C<sub>2</sub> haloalkoxy;

W is a bond,  $-CH_2-$ ,  $-CH_2CH_2-$ ;

- 15 X is a bond;

  phenyl substituted with 0-2 RXb;

  C3-C6 cycloalkyl substituted with 0-2 RXb; or

  5 to 6 membered heterocycle substituted with 0-2 RXb;
- 20  $R^{Xb}$ , at each occurrence, is independently selected from H, OH, Cl, F,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy,  $C_1-C_2$  haloalkyl, and  $C_1-C_2$  haloalkoxy;
- 25 Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-,  $-S(=0)_2$ -,  $-N(R^{19})$ -,  $-C(=0)NR^{19b}$ -,  $-NR^{19b}C(=0)$ -,  $-NR^{19b}S(=0)_2$ -,  $-S(=0)_2NR^{19b}$ -,  $-NR^{19b}S(=0)$ -,  $-S(=0)NR^{19b}$ -, -C(=0)0-, or -OC(=0)-;
- 30 Z is H;  $C_{1}-C_{8} \text{ alkyl substituted with } 0-3 \text{ R}^{12a};$   $C_{2}-C_{6} \text{ alkenyl substituted with } 0-3 \text{ R}^{12a};$   $C_{2}-C_{6} \text{ alkynyl substituted with } 0-3 \text{ R}^{12a};$   $C_{6}-C_{10} \text{ aryl substituted with } 0-4 \text{ R}^{12b};$
- 35 C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; or 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{12b}$ ;

- $\mathbb{R}^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $-C(=0)NR^{15}R^{16}$ , 5  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,  $C_1-C_4$  haloalkoxy,  $C_1-C_4$  haloalkyl-S-,  $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;  $C_3$ - $C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; and 10 5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;
- 15  $\mathbb{R}^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,  $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl,
- $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-; 20
  - $\mathrm{R}^{14}$  is H, phenyl, benzyl,  $\mathrm{C}_1\mathrm{-C}_6$  alkyl,  $\mathrm{C}_2\mathrm{-C}_6$  alkoxyalkyl, or C3-C6 cycloalkyl;
- $R^{14a}$  is H, phenyl, benzyl, or  $C_1-C_4$  alkyl; 25
  - $\mathbb{R}^{15}$ , at each occurrence, is independently selected from H,  $C_1-C_6$  alkyl, benzyl, phenethyl,  $(C_1-C_6$  alkyl)-C (=0)-, and  $(C_1-C_6 \text{ alkyl})-S(=0)_2-;$
- 30  $\mathbb{R}^{16}$ , at each occurrence, is independently selected from H, OH, C1-C6 alkyl, benzyl, phenethyl,  $(C_1-C_4 \text{ alkyl})-C(=0)-$ , and  $(C_1-C_4 \text{ alkyl})-S(=0)_2-$ ;
- $\mathbb{R}^{18}$ , at each occurrence, is independently selected from 35 H, C<sub>1</sub>-C<sub>6</sub> alkyl, phenyl, benzyl, phenethyl,  $(C_1-C_6 \text{ alkyl})-C(=0)-$ , and  $(C_1-C_6 \text{ alkyl})-S(=0)_2-$ ;

R<sup>19</sup>, at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, phenyl, benzyl, phenethyl; and

 $R^{20}$  is H or  $C_1-C_4$  alkyl.

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17. A compound of Claim 16, wherein:

10 L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;  $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;

R<sup>4</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkenyl substituted with 0-3 R<sup>4a</sup>,

C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3 R<sup>4a</sup>,

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,

phenyl substituted with 0-3 R<sup>4b</sup>, or

5 to 6 membered heterocycle containing 1 to 3

heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R<sup>4b</sup>;

R<sup>4a</sup>, at each occurrence, is independently selected from is
H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,
C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>,
phenyl substituted with 0-3 R<sup>4b</sup>, or
5 to 6 membered heterocycle containing 1 to 3
heteroatoms selected from nitrogen, oxygen, and
sulphur, wherein said 5 to 6 membered heterocycle
is substituted with 0-3 R<sup>4b</sup>;

R<sup>4b</sup>, at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, and C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-;

Ring C is a 3-6 membered carbocycle;

wherein said 3-6 membered carbocyclic moiety is

saturated or partially unsaturated;

wherein said 3-6 membered carbocyclic moiety is

substituted with 0-2 R<sup>21</sup>;

optionally, the carbocycle contains a heteroatom

selected from -O- and -N(R<sup>20</sup>)-;

10  $R^{21}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN, NO<sub>2</sub>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, methyl, ethyl, methoxy, ethoxy, allyl, -OCF<sub>3</sub>, and -SCF<sub>3</sub>;

R11 is selected from  $H, =0, NR^{18}R^{19}, CF_3;$ 15  $C_1-C_4$  alkyl optionally substituted with 0-1  $R^{11a}$ ; phenyl substituted with 0-3 R11b;  $C_3$ - $C_6$  carbocycle substituted with 0-3  $R^{11b}$ ; and 5 to 7 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 7 membered heterocycle 20 is substituted with 0-3  $R^{11b}$ ; wherein said 5 to 7 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, 25 pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, homopiperidinyl, and tetrazolyl;

R11a, at each occurrence, is independently selected from H,

methyl, ethyl, propyl, butyl, methoxy, ethoxy,

propoxy, phenoxy, F, Cl, =0, NR15R16, CF3, or phenyl

substituted with 0-3 R11b;

R11b, at each occurrence, is independently selected from H,

OH, Cl, F, NR15R16, CF3, methyl, ethyl, propyl, butyl,

methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2
haloalkoxy;

W is a bond, -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-;

X is a bond;

phenyl substituted with 0-1 RXb; 5 C3-C6 cycloalkyl substituted with 0-1 RXb; or 5 to 6 membered heterocycle substituted with 0-1 R<sup>Xb</sup>;

 $R^{\mathrm{Xb}}$  is selected from H, OH, Cl, F,  $NR^{15}R^{16}$ , CF<sub>3</sub>, acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ , methyl, ethyl, propyl, 10 methoxy, ethoxy, propoxy, and -OCF3;

Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-,  $-S(=0)_2$ -, -NH-,  $-N(CH_3)-$ , or  $-N(CH_2CH_3)-$ ;

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Z is H;

 $C_1-C_8$  alkyl substituted with 0-3  $R^{12a}$ ;  $C_2-C_6$  alkenyl substituted with 0-3  $R^{12a}$ ;

 $C_2-C_6$  alkynyl substituted with 0-3  $R^{12a}$ ;

 $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;  $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3  $R^{12b}$ ;

 $R^{12a}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $-C(=0)NR^{15}R^{16}$ , CF<sub>3</sub>, acetyl, SCH<sub>3</sub>, S(=0)CH<sub>3</sub>, S(=0)<sub>2</sub>CH<sub>3</sub>,

 $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkyl-S-, C6-C10 aryl substituted with 0-4 R12b;

C<sub>3</sub>-C<sub>10</sub> carbocycle substituted with 0-4 R<sup>12b</sup>; or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R12b;

- $\mathbb{R}^{12b}$ , at each occurrence, is independently selected from H, OH, Cl, F, Br, I, CN,  $NO_2$ ,  $NR^{15}R^{16}$ ,  $CF_3$ , acetyl,  $SCH_3$ ,  $S(=0)CH_3$ ,  $S(=0)_2CH_3$ ,
- $C_1-C_6$  alkyl,  $C_1-C_4$  alkoxy,  $C_1-C_4$  haloalkyl, 5  $C_1-C_4$  haloalkoxy, and  $C_1-C_4$  haloalkyl-S-;
  - $\mathbb{R}^{14}$  is H, phenyl, benzyl,  $C_1-C_4$  alkyl, or  $C_2-C_4$  alkoxyalkyl;
- $\mathbb{R}^{15}$ , at each occurrence, is independently selected from H, 10 methyl, ethyl, propyl, butyl, benzyl, and phenethyl;
- $\mathbb{R}^{16}$ , at each occurrence, is independently selected from H, OH, methyl, ethyl, propyl, butyl, benzyl, phenethyl, methyl-C(=0)-, ethyl-C(=0)-, 15 methyl-S(=0)<sub>2</sub>-, and ethyl-S(=0)<sub>2</sub>-;
- $\mathbb{R}^{18}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl; 20
  - R19, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl;
- $\mathbb{R}^{20}$  is H or  $\mathbb{C}_1$ - $\mathbb{C}_4$  alkyl. 25
  - 18. A compound of claim 17, wherein:
  - L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;
- 30  $R^3$  is  $-R^4$ ,  $-CH_2R^4$ ,  $-CH_2CH_2R^4$ ,  $-CH_2OR^4$ , or  $-CH_2CH_2OR^4$ ;
  - $R^4$  is  $C_1-C_6$  alkyl substituted with 0-3  $R^{4a}$ ,  $C_2$ - $C_6$  alkenyl substituted with 0-3  $R^{4a}$ , or
- $C_2$ - $C_6$  alkynyl substituted with 0-3  $R^{4a}$ ; 35

R<sup>4a</sup>, at each occurrence, is independently selected from is H, OH, F, Cl, Br, I, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>,

C<sub>3</sub>-C<sub>6</sub> carbocycle substituted with 0-3 R<sup>4b</sup>, phenyl substituted with 0-3 R<sup>4b</sup>, or

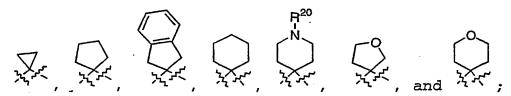
5 to 6 membered heterocycle containing 1 to 3 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R<sup>4b</sup>; wherein said 5 to 6 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, and tetrazolyl;

15 R<sup>4b</sup>, at each occurrence, is independently selected from H,
OH, Cl, F, Br, I, CN, NO<sub>2</sub>, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, acetyl, SCH<sub>3</sub>,  $S(=0) CH_3, S(=0)_2 CH_3,$   $C_1-C_6 \text{ alkyl}, C_1-C_4 \text{ alkoxy}, C_1-C_4 \text{ haloalkyl},$   $C_1-C_4 \text{ haloalkoxy}, \text{ and } C_1-C_4 \text{ haloalkyl}-S-;$ 

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Ring C is a 3-6 membered carbocycle selected from:



wherein said 3-6 membered carbocycle is substituted with 0-1  $R^{21}$ ;

- R<sup>21</sup> is selected from H, OH, Cl, F, CN, CF<sub>3</sub>, methyl, ethyl, methoxy, ethoxy, allyl, and -OCF<sub>3</sub>;
- 30 R<sup>11</sup> is selected from
  H, =0, NR<sup>18</sup>R<sup>19</sup>;
  C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted with 0-1 R<sup>11a</sup>;
  phenyl substituted with 0-3 R<sup>11b</sup>;
  5 to 7 membered heterocycle containing 1 to 4
  heteroatoms selected from nitrogen, oxygen, and

sulphur, wherein said 5 to 7 membered heterocycle is substituted with 0-3 R<sup>11b</sup>; wherein said 5 to 7 membered heterocycle is selected from pyridinyl, pyrimidinyl, triazinyl, furanyl, thienyl, thiazolyl, pyrrolyl, piperazinyl, piperidinyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, homopiperidinyl, and tetrazolyl;

- R<sup>11a</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, methoxy, ethoxy, propoxy, phenoxy, F, Cl, =0, NR<sup>15</sup>R<sup>16</sup>, CF<sub>3</sub>, or phenyl substituted with 0-3 R<sup>11b</sup>;
- R11b, at each occurrence, is independently selected from H,
  OH, Cl, F, NR15R16, CF3, methyl, ethyl, propyl, butyl,
  methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2
  haloalkoxy;

W is a bond or  $-CH_2-$ ;

20

- X is a bond, phenyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl or 5 to 6 membered heterocycle;
- Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-,  $-N(CH_3)$ -, or  $-N(CH_2CH_3)$ -;

Z is H;

 $C_1-C_8$  alkyl substituted with 0-3  $R^{12a}$ ;

 $C_2$ - $C_6$  alkenyl substituted with 0-3  $R^{12a}$ ;

30 C<sub>2</sub>-C<sub>6</sub> alkynyl substituted with 0-3 R<sup>12a</sup>;

 $C_6-C_{10}$  aryl substituted with 0-4  $R^{12b}$ ;

 $C_3-C_{10}$  carbocycle substituted with 0-4  $R^{12b}$ ; or

5 to 10 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 10 membered heterocycle is substituted with 0-3 R<sup>12b</sup>;

10

- R12a, at each occurrence, is independently selected from H, OH, Cl, F, NR15R16, CF3, acetyl, SCH3, S(=0)CH3, S(=0)2CH3, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C1-C2 haloalkyl, and C1-C2 haloalkoxy; phenyl substituted with 0-4 R12b; C3-6 carbocycle substituted with 0-4 R12b; or 5 to 6 membered heterocycle containing 1 to 4 heteroatoms selected from nitrogen, oxygen, and sulphur, wherein said 5 to 6 membered heterocycle is substituted with 0-3 R12b;
- R12b, at each occurrence, is independently selected from H, OH, Cl, F, NR15R16, CF3, acetyl, SCH3, S(=0)CH3, S(=0)<sub>2</sub>CH<sub>3</sub>, methyl, ethyl, propyl, butyl, methoxy, ethoxy, propoxy, C<sub>1</sub>-C<sub>2</sub> haloalkyl, and C<sub>1</sub>-C<sub>2</sub> haloalkoxy;
- $R^{14}$  is H, phenyl, benzyl, methyl, ethyl, propyl, or butyl;
  - $R^{15}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and
- R<sup>16</sup>, at each occurrence, is independently selected from 25 H, OH, methyl, ethyl, propyl, butyl, benzyl, and phenethyl.
- R<sup>18</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, butyl, phenyl, benzyl, and phenethyl;
  - R<sup>19</sup>, at each occurrence, is independently selected from H, methyl, ethyl, propyl, and butyl; and
- 35  $R^{20}$  is H, methyl, or ethyl.
  - 19. A compound of claim 18, wherein:

L is -NHC(=0)-, -C(=0)NH-, or -OC(=0)NH-;

Ring C is selected from:

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R^3 is -CH_3, -CH_2CH_3, -CH_2CH_2CH_3, -CH_2CH_2CH_3,
          -CH_{2}CH_{2}CH_{1}(CH_{3})_{2}, -CH_{2}(CH_{3})_{2}, -CH_{2}CH_{3}(CH_{3})_{2}, -CH_{2}CH_{3}(CH_{3})_{2},
          -CH_2C(CH_3)_3, -CF_3, -CH_2CF_3, -CH_2CH_2CF_3, -CH_2CH_2CH_2CF_3,
10
          -\mathrm{CH}\left(\mathrm{OH}\right)\mathrm{CH}_{2}\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},\ -\mathrm{CH}\left(\mathrm{OH}\right)\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},\ -\mathrm{CH}\left(\mathrm{NH}_{2}\right)\mathrm{CH}_{2}\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2},
          -\mathrm{CH_2CH_2OCH_3}\,,\quad -\mathrm{CH_2OCH_2CH_3}\,,\quad -\mathrm{CF_2CH_2CH}\,(\mathrm{CH_3})_{\,2}\,,
           -CH(NHCH_3)CH_2CH(CH_3)_2, -CH(NHSO_2CH_2CH_2CH_3)CH_2CH(CH_3)_2,
         cyclohexyl-, cyclopentyl-, cyclopropyl-CH2-,
           cyclobutyl-CH_2-, cyclopentyl-CH_2-, cyclohexyl-CH_2-,
15
           {\tt cyclopropyl-CH_2CH_2-,\ cyclobutyl-CH_2CH_2-,\ }
           cyclopentyl-CH<sub>2</sub>CH<sub>2</sub>-, cyclohexyl-CH(OH)-,
           cyclohexyl-CH_2CH_2-, 1-NH_2-cyclopentyl, phenyl-CH_2-,
           (2-F-pheny1)CH_2-, (3-F-pheny1)CH_2-, (4-F-pheny1)CH_2-,
            (2-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2-, (4-Cl-phenyl)CH_2-,
20
            (2,3-diF-phenyl)CH_2-, (2,4-diF-phenyl)CH_2-,
            (2,5-diF-phenyl)CH_2-, (2,6-diF-phenyl)CH_2-,
            (3,4-diF-phenyl)CH_2-, (3,5-diF-phenyl)CH_2-,
            (2,3-diCl-phenyl)CH_2-, (2,4-diCl-phenyl)CH_2-,
            (2,5-diCl-phenyl)CH_2-, (2,6-diCl-phenyl)CH_2-,
 25
            (3,4-diCl-phenyl)CH_2-, (3,5-diCl-phenyl)CH_2-,
            (3-F-4-Cl-phenyl)CH_2-, (3-F-5-Cl-phenyl)CH_2-,
            (3-Cl-4-F-phenyl)CH_2-, phenyl-CH_2CH_2-,
            (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
 30
             (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
             (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
  35
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15

(2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, 4-piperidinyl-CH<sub>2</sub>CH<sub>2</sub>-, phenyl-CH<sub>2</sub>CH<sub>2</sub>CF<sub>2</sub>-, phenyl-CH<sub>2</sub>CH(OH)-, imidazolyl-CH<sub>2</sub>CH(OH)-, or phenyl-CH<sub>2</sub>OCH<sub>2</sub>-;

W is a bond or -CH<sub>2</sub>-;

10 X is a bond;

Y is a bond, -C(=0)-, -0-, -S-, -S(=0)-, -S(=0)<sub>2</sub>-, -NH-, or  $-N(CH_3)$ -,

Z is methyl, ethyl, i-propyl, n-propyl, n-butyl, i-butyl, s-butyl, t-butyl, allyl, phenyl, 2-F-phenyl, 20 3-F-phenyl, 4-F-phenyl, 2-Cl-phenyl, 3-Cl-phenyl, 4-Cl-phenyl, 2,3-dif-phenyl, 2,4-diF-phenyl, 2,5-diF-phenyl, 2,6-diF-phenyl, 3,4-diF-phenyl, 3,5-diF-phenyl, 2,3-diCl-phenyl, 2,4-diCl-phenyl, 2,5-diCl-phenyl, 2,6-diCl-phenyl, 25 3,4-diCl-phenyl, 3,5-diCl-phenyl, 3-F-4-Cl-phenyl, 3-F-5-Cl-phenyl, 3-Cl-4-F-phenyl, 2-Me0-phenyl, 3-MeO-phenyl, 4-MeO-phenyl, 2-Me-phenyl, 3-Me-phenyl, 4-Me-phenyl, 2-MeS-phenyl, 3-MeS-phenyl, 4-MeS-phenyl, 30 2-CF<sub>3</sub>O-phenyl, 3-CF<sub>3</sub>O-phenyl, 4-CF<sub>3</sub>O-phenyl, furanyl, thienyl, pyridyl, 2-Me-pyridyl, 3-Me-pyridyl, 4-Me-pyridyl, 1-imidazolyl, oxazolyl, isoxazolyl, 1-benzimidazolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, morpholino, N-piperinyl,

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phenyl-CH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>-, (3-F-phenyl)CH<sub>2</sub>-,
              (4-F-phenyl)CH_2-, (2-Cl-phenyl)CH_2-, (3-Cl-phenyl)CH_2,
              (4-Cl-phenyl)CH_2-, (2,3-diF-phenyl)CH_2-,
              (2,4-diF-phenyl)CH_2-, (2,5-diF-phenyl)CH_2-,
              (2,6-diF-phenyl)CH_2-, (3,4-diF-phenyl)CH_2-,
5
              (3,5-diF-phenyl)CH_2-, (2,3-diCl-phenyl)CH_2-,
              (2,4-diCl-phenyl)CH_2-, (2,5-diCl-phenyl)CH_2-,
              (2,6-diCl-phenyl)CH_2-, (3,4-diCl-phenyl)CH_2-,
              (3,5-diCl-phenyl)CH<sub>2</sub>-, <math>(3-F-4-Cl-phenyl)CH<sub>2</sub>-,
               (3-F-5-Cl-phenyl)CH_2-, (3-Cl-4-F-phenyl)CH_2-,
10
               (2-MeO-phenyl)CH<sub>2</sub>-, (3-MeO-phenyl)CH<sub>2</sub>-,
               (4-MeO-phenyl)CH_2-, (2-Me-phenyl)CH_2-,
               (3-Me-phenyl)CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>-,
               (2-MeS-phenyl)CH<sub>2</sub>-, (3-MeS-phenyl)CH<sub>2</sub>-,
               4-\text{MeS-phenyl})CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>-,
15
               (3-CF_30-pheny1)CH_2-, (4-CF_30-pheny1)CH_2-,
               (furanyl)CH_2-, (thienyl)CH_2-, (pyridyl)CH_2-,
                (2-Me-pyridyl)CH_2-, (3-Me-pyridyl)CH_2-,
                (4-Me-pyridyl)CH<sub>2</sub>-, (1-imidazolyl)CH<sub>2</sub>-,
                (oxazolyl)CH_2-, (isoxazolyl)CH_2-,
 20
                (1-benzimidazolyl)CH2-, (cyclopropyl)CH2-,
                (cyclobutyl)CH_2-, (cyclopentyl)CH_2-,
                (cyclohexyl) CH2-, (morpholino) CH2-,
                (N-pipridinyl)CH_2-, phenyl-CH_2CH_2-,
                (phenyl)<sub>2</sub>CHCH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
 25
                 (3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                 (2-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                 (4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                 (2,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                 (2,6-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
  30
                 (3,5-diF-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,3-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                 (2,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                 (2,6-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3,4-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                 (3,5-diCl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, <math>(3-F-4-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
                  (3-F-5-Cl-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Cl-4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
  35
                  (2-MeO-pheny1)CH<sub>2</sub>CH<sub>2</sub>-, (3-MeO-pheny1)CH<sub>2</sub>CH<sub>2</sub>-,
                  (4-MeO-phenyl)CH_2CH_2-, (2-Me-phenyl)CH_2CH_2-,
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(3-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (4-Me-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (2-MeS-phenyl)CH2CH2-, (3-MeS-phenyl)CH2CH2-,
            (4-MeS-phenyl)CH<sub>2</sub>CH<sub>2</sub>-, (2-CF<sub>3</sub>O-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (3-CF_3O-phenyl)CH_2CH_2-, (4-CF_3O-phenyl)CH_2CH_2-,
            (furanyl)CH2CH2-, (thienyl)CH2CH2-, (pyridyl)CH2CH2-,
            (2-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (3-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (4-Me-pyridyl)CH<sub>2</sub>CH<sub>2</sub>-, (imidazolyl)CH<sub>2</sub>CH<sub>2</sub>-,
            (oxazolyl)CH2CH2-, (isoxazolyl)CH2CH2-,
            (benzimidazolyl) CH2CH2-, (cyclopropyl) CH2CH2-,
            (cyclobutyl)CH2CH2-, (cyclopentyl)CH2CH2-,
10
            (cyclohexyl)CH2CH2-, (morpholino)CH2CH2-, or
            (N-pipridinyl)CH2CH2-; and
     R11, at each occurrence, is independently selected from
        H, =0, methyl, ethyl, phenyl, benzyl, phenethyl,
15
         4-F-phenyl, (4-F-phenyl)CH<sub>2</sub>-, (4-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
         3-F-phenyl, (3-F-phenyl)CH<sub>2</sub>-, <math>(3-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
         2-F-phenyl, (2-F-phenyl)CH<sub>2</sub>-, (2-F-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
       4-Cl-phenyl, (4-Cl-phenyl)CH2-, (4-Cl-phenyl)CH2CH2-,
         3-C1-phenyl, (3-C1-phenyl)CH_2-, (3-C1-phenyl)CH_2CH_2-,
20
         4-CH<sub>3</sub>-phenyl, (4-CH<sub>3</sub>-phenyl)CH<sub>2</sub>-, (4-CH<sub>3</sub>-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
         3-CH_3-phenyl, (3-CH_3-phenyl)CH_2-, (3-CH_3-phenyl)CH_2CH_2-,
         4-CF<sub>3</sub>-phenyl, (4-CF<sub>3</sub>-phenyl)CH<sub>2</sub>-, (4-CF<sub>3</sub>-phenyl)CH<sub>2</sub>CH<sub>2</sub>-,
         cyclopentyl, pyrid-2-yl, pyrid-3-yl, or pyrid-4-yl.
25
                   A compound of Claim 1 selected from:
            20.
      {[N-(3-methylbutyl)carbamoyl]cyclopentyl}-N-(5-methyl-6-
            oxo(7H-dibenzo[d,f]azaperhydroepin-7-yl))carboxamide;
30
      {[N-(3-methylbutyl)carbamoyl]cyclopentyl}-N-(1-methyl-2-
            oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3-
            yl))carboxamide;
      [(N-butylcarbamoyl)cyclopentyl]-N-(1-methyl-2-oxo-5-
35
            phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carboxamide;
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- 2-(3,5-difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3yl))carbamoyl]cyclohexyl}acetamide; 2-(3,5-difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3yl))carbamoyl]cyclopentyl}acetamide;  $2-(3,5-difluorophenyl)-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-6)]}$ 3H-benzo[f]1,4-diazepin-3yl))carbamoyl]cyclopropyl}acetamide;  $3-cyclopentyl-N-{[N-(1-methyl-2-oxo-5-phenyl((S)-3H-methyl((S)-3H-meth$ benzo[f]1,4-diazepin-3yl))carbamoyl]cyclohexyl}propanamide;  $2-(3,5-difluorophenyl)-N-{4-[N-(1-methyl-2-oxo-5$ phenyl((S)-3H-benzo[f]1,4-diazepin-3-yl))carbamoyl](4piperidyl) } acetamide; phenyl 4-[2-(3,5-difluorophenyl)acetylamino]-4-[N-(1methyl-2-oxo-5-phenyl((S)-3H-benzo[f]1,4-diazepin-3yl))carbamoyl]piperidinecarboxylate;  $4-methyl-N-\{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]$ azaperhydroepin-7-yl))carbamoyl]cyclopentyl}pentanamide;
- 25
- N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3Hbenzo[f]1,4-diazepin-3yl) } { [ (phenylmethoxy) carbonylamino]cyclopentyl } carboxa 30 mide;
- oxoazaperhydroepin-3-yl)carbamoyl]cyclopropyl}-2hydroxy-4-methylpentanamide; 35

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- (2S)-N-{[N-(1-{[3-(4-fluorophenoxy)phenyl]methyl}-2oxoazaperhydroepin-3-yl)carbamoyl]cyclopentyl}-2hydroxy-3-methylbutanamide;
- N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3Hbenzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]-3-(4-piperidyl)propanamide;
- - (2R)-2-hydroxy-3-imidazol-2-yl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]propanamide;
- 25 2-ethoxy-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]acetamide;
- 3-cyclopentyl-N-[(N-{1-methyl-2-oxo-5-[4-30 (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]propanamide;
- (2S)-2-hydroxy-3-methyl-N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3yl)}carbamoyl)cyclopentyl]butanamide;

5	<pre>(2S)-2-cyclohexyl-2-hydroxy-N-[(N-{1-methyl-2-oxo-5-[4-</pre>
10	<pre>(2S) -2-amino-4-methyl-N-[(N-{1-methyl-2-oxo-5-[4- (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3- yl)}carbamoyl)cyclopentyl]pentanamide;</pre>
	<pre>[(cyclohexylcarbonylamino)cyclopentyl]-N-{1-methyl-2-oxo-5- [4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3- yl)}carboxamide;</pre>
15	<pre>{[N-(3-methylbutyl)carbamoyl]cyclopentyl}-N-{1-methyl-2- oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4- diazepin-3-yl)}carboxamide;</pre>
20	4-methyl-N-[(N-{1-methyl-2-oxo-5-[4- (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3- yl)}carbamoyl)cyclopentyl]pentanamide;
25	<pre>(2S)-2-hydroxy-4-methyl-N-[(N-{1-methyl-2-oxo-5-[4- (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3- yl)}carbamoyl)cyclopentyl]pentanamide;</pre>
30	<pre>3-methoxy-N-[(N-{1-methyl-2-oxo-5-[4-           (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-           yl)}carbamoyl)cyclopentyl]propanamide;</pre>
	<pre>(2S)-2-hydroxy-N-[(N-{1-methyl-2-oxo-5-[4- (trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3- yl)}carbamoyl)cyclopentyl]-3-phenylpropanamide;</pre>

(

- N-[(N-{1-methyl-2-oxo-5-[4-(trifluoromethyl)phenyl](3H-benzo[f]1,4-diazepin-3-yl)}carbamoyl)cyclopentyl]-2-(phenylmethoxy)acetamide;
- 5 (2S)-2-hydroxy-3-methyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-vl))carbamoyl]cyclopentyl}butanamide;
- - 3-cyclopentyl-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f] azaperhydroepin-7-yl))carbamoyl]cyclopentyl}propanamide;
  - (2S)-2-cyclohexyl-2-hydroxy-N-{[N-(5-methyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7vl))carbamoyl]cyclopentyl}acetamide;
- 20 3-cyclopropyl-N-{[N-(5-methyl-6-oxo(7Hdibenzo[d,f]azaperhydroepin-7yl))carbamoyl]cyclopentyl}propanamide;
- N-{[N-(1-butyl-5-cyclopentyl-2-oxo(3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopentyl}-4-methylpentanamide;
  - N-{[N-(5-cyclopentyl-1-methyl-2-oxo(3H-benzo[f]1,4-diazepin-3-yl))carbamoyl]cyclopentyl}-4-methylpentanamide;
- 30 (2S)-2-hydroxy-3-methyl-N-({N-[2-oxo-1-benzyl(3H,4H,5H-benzo[f]azaperhydroepin-3-yl)]carbamoyl}cyclopentyl)
  butanamide;

```
(2S) - 2 - amino - 4 - methyl - N - {[N - (5 - methyl - 6 - oxo(7H - 6)]}
         dibenzo[d,f]azaperhydroepin-7-
         yl))carbamoyl]cyclopentyl)pentanamide;
5
    2,2-difluoro-4-methyl-N-{[N-(5-methyl-6-oxo(7H-)]}
         dibenzo[d,f]azaperhydroepin-7-
         yl))carbamoyl]cyclopentyl}pentanamide;
    4-methyl-N-{[N-(6-oxo(5H,7H-dibenzo[d,f]azaperhydroepin-7-
10
         yl))carbamoyl]cyclopentyl}pentanamide;
    N-({N-[5-(3,3-dimethyl-2-oxobutyl)-6-oxo(7H-
         dibenzo[d,f]azaperhydroepin-7-
         yl)]carbamoyl}cyclopentyl)-4-methylpentanamide;
15
     4-methyl-N-[(N-\{6-oxo-5-[(3-phenoxyphenyl)methyl](7H-
          dibenzo[d,f]azaperhydroepin-7-
          yl) } carbamoyl) cyclopentyl] pentanamide;
20
     N-{[N-(5-butyl-6-oxo(7H-dibenzo[d,f]azaperhydroepin-7-
          yl))carbamoyl]cyclopentyl}-4-methylpentanamide;
     4-methyl-N-({N-[6-oxo-5-benzyl(7H-
          dibenzo[d,f]azaperhydroepin-7-
 25
          yl)]carbamoyl}cyclopentyl)pentanamide;
     N-({N-[5-(tert-butyl)-1-methyl-2-oxo(3H-benzo[f]1,4-})
           diazepin-3-yl)]carbamoyl}cyclopentyl)-4-
           methylpentanamide;
 30
      N-({N-[5-(tert-butyl)-1-butyl-2-oxo(3H-benzo[f]1,4-
           diazepin-3-yl)]carbamoyl)cyclopentyl)-4-
           methylpentanamide; and
```

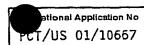
20

25

N-({N-[5-butyl-2-oxo-1-(2-pyridylmethyl)(3H-benzo[f]1,4-diazepin-3-yl)]carbamoyl}cyclopentyl)-4-methylpentanamide.

- 21. A method for the treatment of neurological disorders associated with β-amyloid production comprising administering to a host in need of such treatment a therapeutically effective amount of a compound according to one of Claims 1-20 or a pharmaceutically acceptable salt or prodrug thereof.
  - 22. A pharmaceutical composition comprising a compound according to one of Claims 1-20 and a pharmaceutically acceptable carrier.
  - 23. A method for the treatment of neurological disorders associated with  $\beta$ -amyloid production comprising administering to a host in need of such treatment a therapeutically effective amount of a compound according to one of Claims 1-20.
  - 24. A method for inhibiting  $\gamma$ -secretase activity comprising administering to a host in need of such inhibition a therapeutically effective amount of a compound according to one of Claims 1-20 that inhibits  $\gamma$ -secretase activity.





A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07D223/18 C07D243/24 C07D401/12 C07D223/12 C07D403/12 C07D223/16 C07D243/14 C07D401/06 A61K31/55 A61K31/551 A61K31/5513 A61P25/28 C07K5/06 C07K5/08 A61K38/00 According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 C07D A61K A61P C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fleids searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUM	INTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	US 5 378 844 A (DEVELLIS PATRIZIA ET AL) 3 January 1995 (1995-01-03) column 5, line 48 - line 49	1
X	WO 92 16524 A (MERCK & CO INC) 1 October 1992 (1992-10-01)	1-4
A Û	example 19, step A page 62, line 14; example 29	1,21
X	US 4 897 489 A (HARADA SETSUO ET AL) 30 January 1990 (1990-01-30) examples 46A,46B	1
Х	WO 99 66934 A (AUDIA JAMES E ;ELAN PHARM INC (US); LILLY CO ELI (US); SHI QING (U) 29 December 1999 (1999-12-29) page 25; claim 41	1,21
	-/	

X Further documents are listed in the continuation of box C.	X Patent tamily members are listed in annex.		
Special categories of cited documents:  A' document defining the general state of the art which is not considered to be of particular relevance  E' earlier document but published on or after the International filing date  L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  O' document referring to an oral disclosure, use, exhibition or other means  P' document published prior to the international filing date but later than the priority date claimed	<ul> <li>'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention.</li> <li>'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone.</li> <li>'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>'&amp;' document member of the same patent family</li> </ul>		
Date of the actual completion of the international search  28 August 2001	Date of mailing of the international search report  05/09/2001		
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo ni,  Fax: (+31-70) 340-3016	Authorized officer Seitner, I		

Form PCT/ISA/210 (second sheel) (July 1992)



onsi Application No PCT/US 01/10667

	ation) DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim No.	
egory *	Citation of document, with indication, where appropriate, of the relevant passages			
	WO 98 28268 A (MCDANIEL STACEY L ;SCOTT WILLIAM LEONARD (US); THORSETT EUGENE D () 2 July 1998 (1998-07-02) examples 7C-36,7C-224,7C-230,7C-236,7C-242 claim 2		1,21	
	WO 99 67221 A (MCDANIEL STACEY L ;AUDIA JAMES E (US); CWI CYNTHIA L (US); ELAN PH) 29 December 1999 (1999-12-29) claim 1		1,21	
		·		

Form PCT/ISA/210 (continuation of second sheat) (July 1992)

International Application No. PCT/US 01 /10667

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-24 (all partially)

Present claims1-24 relate to a componds defined by reference to a desirable characteristic or property, namely prodrugs of Formula (I) of claim 1

The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

Consequently, all claims were completely searched except for those parts pertaining to prodrugs. Nevertheless, the search was also complete for acetate, formate, and benzoate derivatives of alcohol and amine functional groups in the compounds of Formula (I) of claim 1 (see page 108, lines 9-11).

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

## INTERNATIONAL SEARCH REPORT

ermation on patent family members

tional Application No PCI/US 01/10667

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